FAA Aviation News

SAFETY FIRST FOR GENERAL AVIATION

July/August 2008
Volume 47/Number 4

In this issue...

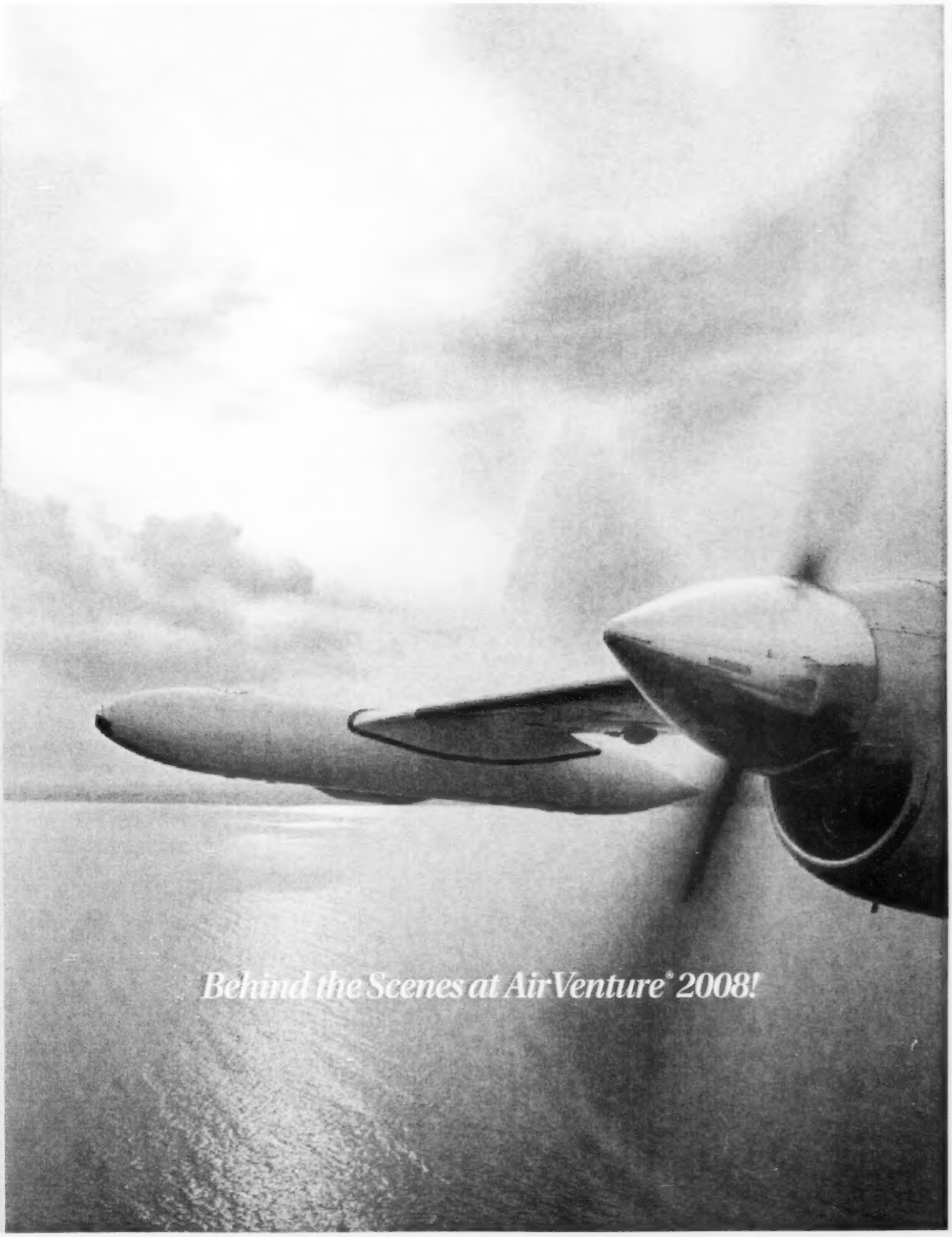
The Legend of Lake Winnebago

Transit Traps

Thirteen Tips to Keep You Flying Safely

National General Aviation Awards

Young Eagles Flight Education



About the Cover: *An MU-2 flies over water at sunset. Look inside for over water flying safety tips. Photo courtesy of Turbine Aircraft Services*

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Lynn McCloud *Contributor*
Gwynn K. Fuchs *GPO Creative & Digital Media Services*

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DIRECTOR, FLIGHT STANDARDS SERVICE

Jumpseat

Fifty Years of Improving Safety

Fifty years ago, on August 23, 1958, President Dwight D. Eisenhower signed the Federal Aviation Act of 1958 into law. The Act created an independent Federal Aviation Agency (FAA), which would later become the Federal Aviation Administration under the Department of Transportation.

In many ways, 1958 was a landmark year for civil aviation in the United States. For the airlines, this was the year jets started in scheduled service. Pan Am was first with its Boeing 707 flights between New York and Paris. This was also the year the scheduled airlines delivered on their promise as a practical form of inter-city, as well as international, transportation. In 1958, for the first time, the number of people traveling by air across the Atlantic exceeded the number traveling by sea.

The late 1950s was an exciting period for general aviation (GA), which then, as now, covered the entire spectrum of civilian flying excluding the scheduled air carriers and the military. By the time the Federal Aviation Act was signed into law, Paul Poberezny had his Experimental Aircraft Association (EAA) up and running and had already hosted six annual fly-in conventions at Curtiss Wright Field (now Timmerman) in Milwaukee.

By one estimate, there were 350,000 licensed pilots in 1958. One pilot, who had soloed in 1937 in the Philippines, became a member of the Aircraft Owners and Pilots Association (AOPA) that year. In a 1958 letter, the new member, President Eisenhower, wrote to AOPA President J. B. Hartranft, Jr., "I am conscious of the vital role of aviation in our national life. The increase in the number of private pilots and privately owned aircraft in our country is a remarkable demonstration of our ability to put to practical uses the rapid developments in the aviation field."

It was indeed a "remarkable demonstration." Since then, GA has grown to encompass more than 320,000 aircraft worldwide, according to the General Aviation Manufacturers Association (GAMA). More than two-thirds of these aircraft, which range from two-seat training airplanes to intercontinental business jets, are based in the United States. GAMA reports general aviation contributes more than $150 billion to the U.S. economy each year and employs nearly 1.3 billion people. More than that, GA, often described as the "backbone" of aviation, contributes immensely to our way of life.

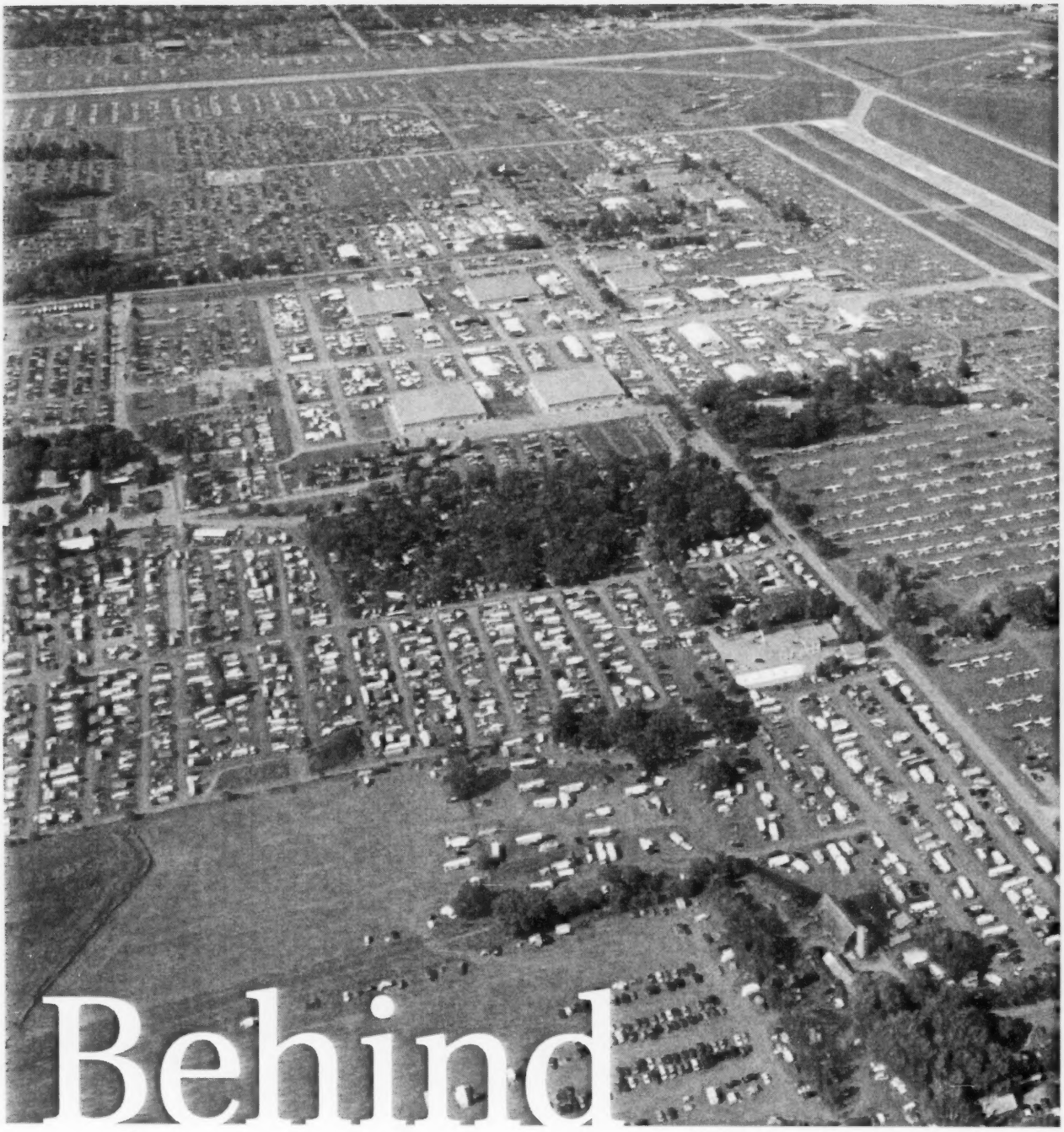
In FAA's fifty-year history, there's been a huge change in FAA's relationship with the GA community. In the late 1950s, "the private pilots' mutual fear," according to historian Stuart Rochester, "was that the light plane would be sacrificed on the altar of the jet age." Rochester added that, "No Federal agency during the Eisenhower years ruffled more feathers than the FAA...Relations with private pilots were anything but amicable."

We will still ruffle feathers. That comes with being a regulator. But, our number one goal is improving safety, and we do that by using every tool in our toolkit. These tools include developing and enforcing regulations, to be sure, but also include training, technical assistance, information sharing, and working together.

Working together is essential. We improve GA safety through formal associations, such as the General Aviation Joint Steering Committee, which includes AOPA, EAA, GAMA, and more. We also work together less formally through our FAA Safety Team outreach programs and seminars, which you can learn about at www.faasafety.gov/. We also work together through our presence at the EAA AirVenture Oshkosh™ and many other GA fly-ins, conventions, and gatherings.

Stop by the FAA Safety Center during EAA AirVenture Oshkosh

GA flying is far safer than it was fifty years ago. Last year, GA had the fewest fatal accidents and fewest fatalities since World War II. Our goal is to continue that strong record, which with the dramatic changes in technology will be a big challenge, but we're up for it. It's why I come to work every day.



Behind the Scenes

SUSAN PARSON

Photo courtesy of EAA®

The excitement of the Experimental Aircraft Association's (EAA) AirVenture® convention seems very far away in the frigid temperatures of January in the Midwest, but the FAA's Estela Ponce knows from long experience that it is never too early to start planning for the FAA's participation in general aviation's premier event. As the Regional Executive Programs Specialist, Ponce leads a team that is overseen by the Great Lakes Regional Administrator to pave the way for another successful year of the agency's participation at Oshkosh™. Ponce coordinates not just with the EAA planning team, but also with the numerous FAA "lines of business" (LOB), who support and participate in AirVenture each year. We recently caught up with Ponce, who gave the *FAA Aviation News* a behind-the-scenes look at the work she and her team do in connection with this event.

Exhibit Hall

The Exhibit Hall in the big blue and tan building, known as the FAA Safety Center, is a showcase for FAA's national initiatives. "This is where the FAA comes together," notes Ponce. The FAA planning team keeps three main goals in mind when reviewing each year's list of possible exhibitors, which averages around 20. The first is to provide representation by all major FAA organizations that interact with the general aviation community. Exhibits by organizations, such as the FAA Civil Aviation Registry and the Civil Aerospace Medical Institute (CAMI), are examples of how the planning team meets this goal.

"With approximately 800,000 annual visitors, AirVenture Oshkosh™ has grown to be an international gathering place for aviation professionals and enthusiasts."

The second goal is to offer exhibits that underscore special emphasis areas for safety and pilot education. Reducing the potential for runway incursions and runway collisions is a top priority for the FAA, which aims to reduce the severity, number, and rate of runway incursions by mitigating errors that contribute to collision risks. The Exhibit Hall displays offered by the FAA's Office of Runway Safety are thus a good example of meeting this goal.

A third goal, according to Ponce, is to "showcase the FAA's national initiatives through exhibits that communicate the agency's newest and best ideas." A key exhibit in this category is the display associated with the Next Generation Air Transportation System, also known as "NextGen." The Aviation and Space Education (AVSED) team, which participates in each year's KidVenture EAA® events (see article on page 27), is involved as well. Look for AVSED in the special exhibit area located

near Pioneer Hangar. Ponce hinted that there may be a few out-of-the-ordinary exhibits as well at AirVenture 2008, so be sure to tour the entire Exhibit Hall, if your travel plans for this summer include a trip to Oshkosh.

Coordinating the budget, production, shipping, and setup of exhibits is always a huge task for Ponce and her team. To ensure that all of the FAA's exhibits meet appearance standards and share a common look and feel, the FAA's Technical Center in Atlantic City, New Jersey, works with Ponce, as well as the individual lines of business, to design and produce the signs and displays that visitors will see in the Exhibit Hall. Ponce also notes that new "industrial strength" overhead fans in the Exhibit Hall will make the space more comfortable for those walking through, as well as for the people staffing each display area.

The Exhibit Hall in the FAA Safety Center is a showcase for FAA's national initiatives. "This is where the FAA comes together," notes Ponce.

Still another coordination task is acquiring accommodations during convention week at Oshkosh. This year Ponce is reminding participants to consider houses that can be rented (listing maintained by the Oshkosh Chamber of Commerce). So if you're thinking of Oshkosh in July, check www.airventure.org for lodging suggestions.

FAA Safety Forum

To organize the safety education programs offered in the forum part of the FAA Safety Center, the team turns to Rich Mileham, Great Lakes FAA Safety Team (FAASTeam) Assistant Manager. (Mileham is featured in our FAA Faces column on the inside back cover.) Now in his tenth year of organizing events and presentations for the FAA Safety Forum, Mileham is also responsible for coordinating and managing the Flight Standards Service's displays in the Exhibit Hall. Like Ponce, Mileham's preparations for AirVenture start in January, when he sends a message soliciting ideas for Safety Forum topics and speakers. "We aim to address subjects tied to the FAA Flight Plan, [strategic plan]" notes Mileham, "as well as areas targeted by the FAASTeam for accident prevention."

With six forums to run each day of the convention, he also works to offer Oshkosh audiences a broad mix of speakers. These include representatives from FAA headquarters in Washington, Flight Standards District Offices (FSDOs), FAASTeam members, and general aviation industry groups. Mileham also maintains close contact with King Schools and organizations, such as the Aviation Speakers Bureau, which facilitates participation by speakers such as aviation educator and humorist Rod Machado and former NTSB accident investigator Greg Feith.

Mileham notes that Safety Forum audiences this year will benefit from several improvements made to the FAA's "big blue and tan building" since 2007. The Safety Forum has been air conditioned and equipped with a better stage, new screens, a satellite link, and facilities for streaming video. Although AirVenture still sees the greatest use of the Safety Forum, Mileham indicated that plans for year-round use of this facility are well underway.

"Command Center"

A third major part of the FAA's AirVenture effort is running an office facility, which Ponce's team calls the command center. "We have anything and everything," states Ponce, who stresses that the FAA's Oshkosh command center is visible and accessible. The command center, site of the coordination and check-in meeting that Ponce runs early each morning of the AirVenture convention, includes meeting and hospitality facilities, secure phone lines, a computer section for FAA employee use, and a myriad of other items that go into facilitating participation in Oshkosh. "It's all about service, and making it look seamless. Our collective efforts promote the FAA as an agency that is responsive to the needs of the aviation public," Ponce observed. "Our office team manages the meeting rooms, golf carts and cars used for transportation, passes, a message center—we even keep a stock of umbrellas on hand! We do whatever coordination is needed before the show and any troubleshooting required during the show."

As you might imagine, security is another part of the command center's responsibility. There are daily meetings with EAA, and security planning includes such items as an up-to-date evacuation

Elaine Buckner photo

The smile shows how much Wanda Adelman enjoys working Oshkosh.

plan, and keeping track of who is working in the Exhibit Hall and Safety Forum areas. "Our aim is to expect and plan for the unexpected," says Ponce.

Although the command center and its meeting facilities do serve as gathering areas for FAA officials who come to Oshkosh for AirVenture, Ponce is quick to clarify that one task that does not go to the FAA's Great Lakes Region planning team is the FAA Administrator's schedule. "We do keep track of schedules, of course, and help as needed, but the EAA folks are the ones who develop and coordinate the AirVenture meeting and event schedules for senior agency officials."

Air Traffic Control

Air Traffic Control (ATC) is one of the most visible and vital parts of the AirVenture fly-in, and the lead organizational role for this function falls to Wanda Adelman, air traffic manager of the Milwaukee (MKE) tower. "It really is a continuous process," she notes. "We are constantly reviewing how it worked last year, and planning how to make it better next time."

Staffing efforts start around December, when interested controllers from the Air Traffic Organization's (ATO) Central Service Area bid for one of the 64 slots available. "We're working O'Hare-level traffic with pilots whose experience is all over the map, so we're looking for the best of the best," says Adelman. The application process requires various recommendations and experience counts, too. The team tries to select half of the controllers from the "veteran" category, which requires at least three years of AirVenture experience. Controllers in the "limited" category have one or two years experience at AirVenture and fill 25 percent of the slots. The remaining 25 percent are "rookies." The 16 AirVenture work teams are composed according to these proportions as well. The aim is to include two veterans, one limited, and one rookie on each four-person team.

Laurie Zalesk photo

Visitors check out the many displays in the FAA Exhibit Hall.

The controllers selected for Oshkosh receive a detailed training manual, plus online training that starts about two months before the air show. Part of the training includes aircraft recognition. "We have such a wide variety of aircraft at this event, so there's a lot to learn," says Adelman. Controllers then get one day of classroom training at Oshkosh before the show begins. The hands-on training continues throughout the week for the "limiteds" and "rookies." Oshkosh normally is a contract tower, but the FAA takes over on the Friday before AirVenture starts. The tower teams this year

will have the advantage of the new Oshkosh air traffic control tower, which opens this summer. The placement and greater height of the new tower will greatly enhance visibility and safety for everyone.

And, speaking of visibility: that's the reason for the bright pink shirts Oshkosh controllers wear each year. Though some might prefer a different color, Adelman observes that the pink shirts are a proven safety measure because they are so distinctive. "The shirts make it really easy for everyone, including other controllers, to spot our teams."

ATC works O'Hare-level traffic with pilots whose experience is all over the map, so Oshkosh controllers are the best of the best.

Controller teams rotate through several different areas. "Everything starts at our 'VFR approach control' at Fisk," observes Adelman. "That's where we 'untangle the gaggle' of airplanes headed for the show and get everyone lined up for an arrival runway." It would be hard to overstate the importance of the work done at Fisk. "We like to say that 'as Fisk goes, so goes Oshkosh,'" she notes. The teams working the Oshkosh tower clear arriving aircraft to land. Departures are handled by controller teams working from mobile platforms colorfully known as MOOCOWs (**MO**bile **O**perating and **CO**mmunications **W**orkstation).

One of the many details that Adelman and her team handle each year is the necessary process of getting waivers from normal ATC separation requirements. These include waivers to allow less than standard separation on runways, as well as the "look-and-go" procedures that controllers on the MOOCOWs use to clear departing traffic. "Safety is paramount, but with so many airplanes, there just isn't time for the normal radio coordination," notes Adelman. "That's why it is so critical to have highly experienced controllers."

Pilot preparation is essential as well, and Adelman stresses that anyone planning to fly to AirVenture should be totally familiar with the event's *Notice to Airmen* (NOTAM). "There are several changes this year," she observes, so please don't assume it's business as usual. Among the changes pilots should know about is a reconfiguration of airspace last February that shifted the Oshkosh area, formerly controlled by Chicago Center, to Milwaukee Approach Control. You can find the 2008 AirVenture NOTAM at www.faa.gov/. Adelman notes that it is also available in the ATC section of the AirVenture Web site (http://www.airventure.org/atc/index.html), which also includes more information on ATC's role, as well as links to the aircraft recognition training materials that controllers use.

Enjoy the Show!

As Ponce stresses, planning for and then running the FAA's annual participation in the EAA's AirVenture event is a major task that requires months of preparation by many FAA entities—but one well worth the effort. "With approximately 800,000 annual visitors, AirVenture Oshkosh™ has grown to be an international gathering place for aviation professionals and enthusiasts. As dedicated and proud FAA employees, our hard work brings the FAA's Flight Plan to life at Oshkosh. I can think of no better place to convey what our agency is about. Not only do we make America fly, at Oshkosh we really are spreading our safety message around the world!"

Susan Parson is a Special Assistant in Flight Standards Service's General Aviation and Commercial Division. She is an active general aviation pilot and flight instructor.

Meet the FAA

A perennial feature of the annual Experimental Aircraft Association (EAA) AirVenture® convention and air show in Oshkosh, Wisconsin, is "Meet the FAA." Held in the FAA Aviation Safety Center, "Meet the FAA"—sometimes also known as "Meet the Boss"—is an important opportunity for Washington-based officials to meet aviation enthusiasts from all over the country, hear their concerns, and answer questions. It is also an opportunity for senior FAA officials to provide information on FAA policies and directions.

If you plan to be in Oshkosh for this summer's AirVenture (July 28 through August 3), we hope to see you at the FAA Aviation Safety Center during convention week. If Oshkosh isn't on your travel agenda for the summer, though, here is a roundup of topics likely to be addressed in this year's "Meet the FAA" session.

General Aviation Safety

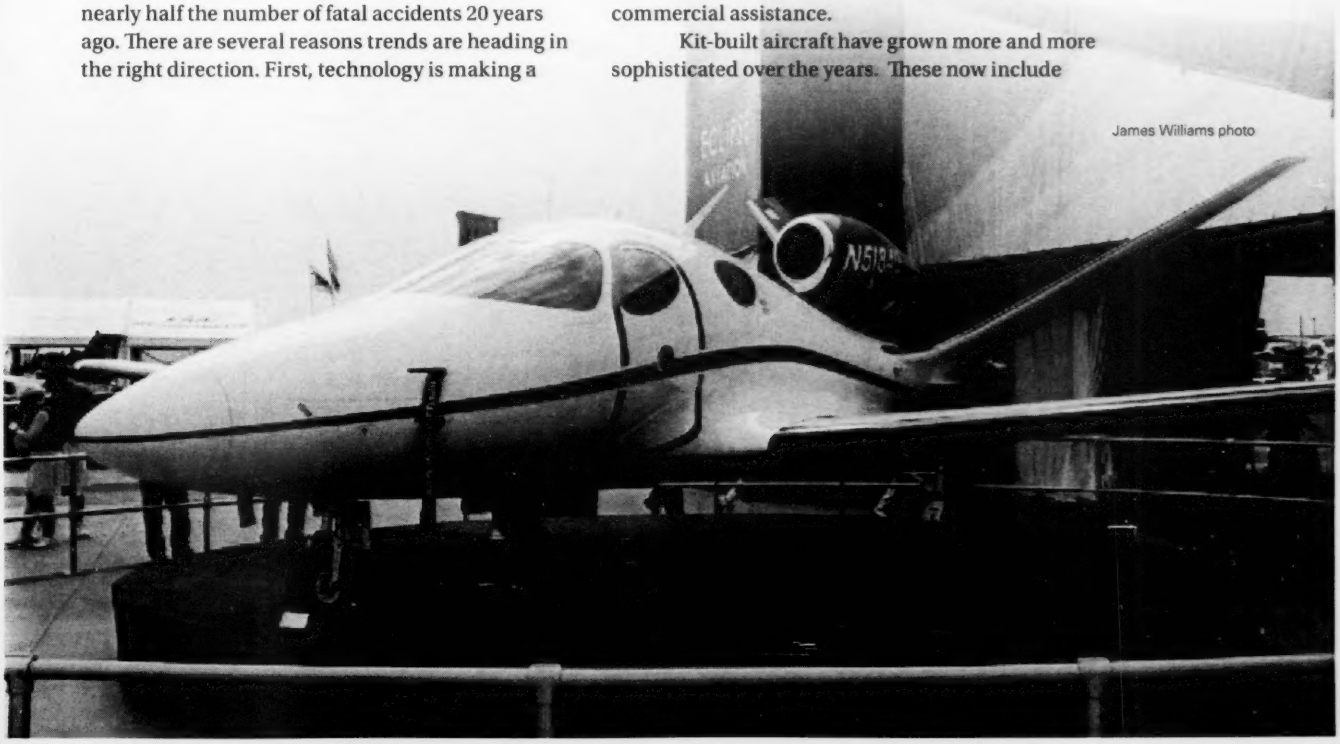
Last year, general aviation (GA) had the fewest fatal accidents and fewest fatalities since World War II. There were 284 fatal GA accidents in 2007, nearly half the number of fatal accidents 20 years ago. There are several reasons trends are heading in the right direction. First, technology is making a difference. Today's GA aircraft are better designed, as well as better built with more reliable engines, and they provide greater and enhanced information in the cockpit. Second, we are seeing greater evidence of a safety culture across the GA spectrum. Pilots understand the importance of continuing education and are taking advantage of training opportunities. Third, today's pilots understand that flying demands respect and are making it a habit to assess risk and practice risk management.

Amateur-Built Aircraft (51 Percent Rule)

In February 2007, the FAA's Aircraft Certification Service released the final report of the Amateur-built Aviation Rulemaking Committee (ARC). The committee included kit manufacturers, commercial assistance companies, and EAA representation. The agency formed this committee in July 2006 to make recommendations on the use of builder or commercial assistance when fabricating and assembling amateur-built aircraft. The ARC findings were that the FAA's procedures are inadequate, and there has often been too much commercial assistance.

Kit-built aircraft have grown more and more sophisticated over the years. These now include

James Williams photo



high performance, all composite, six-place aircraft. They are so sophisticated that the FAA agreed with the Committee that it is time to update procedures for evaluating these aircraft to the regulation requirement—known as the 51 Percent Rule. Based on the ARC findings, the FAA chose to suspend the courtesy kit evaluations that aviation safety inspectors conducted. During the suspension, which is expected to continue through the summer of 2008, the FAA is rewriting its procedures to implement the ARC recommendations.

"Meet the FAA" gives senior agency officials a chance to hear directly from pilots from all over the country.

Be assured, the FAA does not intend to re-evaluate or remove any of the kits from the current eligibility list as a result of developing new evaluation procedures. As is current practice, a re-evaluation of any kit on the current eligibility list would only occur if a potentially unsafe condition is identified. The temporary suspension of kit evaluations does not affect the status of kits previously determined to be eligible for certification as an amateur-built aircraft, and previous FAA-conducted amateur-built aircraft kit evaluations remain valid.

Aging General Aviation Aircraft

The U.S. general aviation and air taxi fleet consists of more than 200,000 aircraft with an average age of approximately 33 years. The fleet includes more than 125,000 aircraft that are more than 35 years old. Although these airplanes are aging, they continue to offer utility and value to owners and operators. To keep these airplanes flying safely into the future, the FAA has been working collaboratively with industry and has taken the following key steps:

- Conducted education and training outreach
- Assisted in the development of the Aircraft Owners and Pilot's Association (AOPA)/ Air Safety Foundation Web-based training course on aging aircraft, which more than 13,000 pilots and mechanics have completed
- Delivered presentations at pilot safety seminars, designee conferences, and air shows
- Hosted public meetings on aging GA aircraft issues
- Conducted seven outreach presentations since Oshkosh 2007™
- Co-developed the *Aging Aircraft Best Practices Guide*
- Co-developed American Standards for Testing and Materials (ASTM) International consensus wiring standards
- Sponsored research and development
- Conducted aged airplane teardowns
- Developed small airplane fatigue analysis methods
- Developed risk-based methods for analyzing and acting on fatigue continued operational safety (COS) issues
- Issued policy and guidance for streamlined installation of safety enhancements

The FAA has also developed an aging GA Roadmap that serves as a guide to proactively manage the safety of aging GA airplanes. The Roadmap primarily focuses on non-regulatory solutions in the following areas:

- Proactive identification of safety concerns
- Data-driven risk assessment and risk management
- Availability of data and parts
- Maintenance and inspection

Sport Pilot Rule Changes

At 2004's AirVenture, the FAA announced the issuance of the Sport Pilot/Light Sport Aircraft rule, which was designed to create a safe, but not overly burdensome regulatory environment for light-sport operations. That rule has now been in effect for nearly four years, and both FAA and the flying community have been learning what works, and what doesn't. To address some of the issues that have come to light since the rule took effect in the fall of 2004, on April 15, 2008, the FAA issued a Notice of Proposed Rulemaking (NPRM) to provide relief from provisions that pilots have found redundant or unnecessary.

One significant part of the proposal is to remove all requirements applicable to "sets of aircraft" to include all requirements for specific endorsements to operate an aircraft within a particular set of aircraft. Another proposal is to allow

sport pilots to operate in mountainous areas at altitudes higher than 10,000 feet MSL (mean sea level).

The NPRM also solicits comments on addressing the apparent lack of standardization in the administration of practical tests leading to the issuance of category and class privileges for sport pilot applicants. The FAA is proposing to replace sport pilot and flight instructor privileges with ratings on all certificates. Having privileges to operate a category and class of aircraft as a rating on a person's sport pilot certificate would provide sport pilots with enhanced recognition of their skills, which may also lead to broader international recognition of sport pilot and sport pilot flight instructor certificates. The comment period on this proposed rule will be open until August 13, 2008, and FAA welcomes your thoughts. You may send your comments, identified by docket number FAA 2007-29015, electronically through http://www.regulations.gov and follow the online instructions or mail comments to the Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue, SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.

Reauthorization

One of the most important issues for general aviation that will likely be discussed at the "Meet the FAA" session is the funding of FAA programs. The FAA, which is the equivalent of a $15 billion-dollar business, must have Congress authorize funding for its programs, including transformation to the Next Generation Air Transportation System (NextGen). After an agency's programs are authorized, then it is up to Congress to appropriate the funds for the programs that were authorized. The FAA also needs Congress to reauthorize or replace the aviation taxes that go into the Airport and Airways Trust Fund and fund about 80 percent of its budget. FAA is currently operating under an extension of its previous authorization that expired at the end of September 2007. As this issue went to press in June, the current extension was set to expire on June 30, 2008. It is difficult to operate the FAA under short-term extensions because this type of funding hinders planning to address long-term challenges.

The Administration has three basic principles for the reauthorization of FAA financing. First, create a stable, cost-based funding stream. Second, dedicate funding specifically for NextGen capital outlays. Third, establish user contributions that more closely reflect the actual costs.

At press-time, the Administration was working with Congress and industry to enact a comprehensive, multi-year reauthorization of the FAA that would allow the greater fairness, flexibility, and stability U.S. aviation needs to remain the model for the world. FAA is on record in agreeing that general aviation should pay its share in the form of fuel taxes, just as it does today. However, FAA also believes GA—particularly turbine-powered aircraft—should pay a fairer share of the taxes.

Part 23 Jets (aka VLJ)

As of press-time, the FAA had 11 open certification projects for light jets, eight of which are currently active. The designs range from an under 6,000-pound, single-engine jet to twin-engine, commuter category jets. Other manufacturers are developing jet designs and depending on viability, there may be as many as 18 additional light jet type certification projects. Certification of the aircraft is only part of the story. To prepare for the introduction of these aircraft into the National Airspace System (NAS), the FAA established a cross-organizational group that includes representatives from the Flight Standards Service, the Aircraft Certification Service, and the Air Traffic Organization. The goal of the cross-organizational group is to identify potential issues associated with the introduction of these aircraft and develop coordinated solutions to address these issues in a timely fashion.

Medical Certification

A constant concern for pilots is the processing of special issuance medical certificates. As a result, the FAA has made several changes to the process. For example, FAA modified the system to reduce delays in the issuance of medical waivers. Average waiting time for special issuance was reduced from several months to 16 days. In addition, the FAA initiated rulemaking to extend the interval for first-class medical certification to one year, and for third-class pilots to five years for pilots under 40. These changes will reduce annual applications by about 75,000.

SUSAN PARSON

Checklist

Ready to Copy

Four years ago this summer the FAA issued a final rule entitled "Certification of Aircraft and Airmen for the Operation of Light-Sport Aircraft." Known more commonly as the Sport Pilot/Light Sport Aircraft (SP/LSA) rule, this document established certification requirements for sport pilots and flight instructors, along with requirements for certification, operation, maintenance, and manufacture of light-sport aircraft.

Many people in the FAA and the sport aviation community worked very hard on this rule, and their common goal was to get it right, right from the start. But, as the saying goes, "you don't know what you don't know," when it comes to new endeavors. Since the SP/LSA rule took effect, the FAA has been evaluating its implementation, and we have been listening to pilots, organizations, and individual aircraft owners in the light sport community.

The FAA is "ready to copy" your comments on proposed amendments to the SP/LSA rule.

Here's what we heard: You told us that some of the ideas, concepts, and procedures may not adequately meet the needs of this particular flying community. As a result, the FAA reviewed the current regulation and identified a number of areas where changes to the SP/LSA rule can provide relief to the light-sport community without compromising safety. This review process led to the April 15, 2008, publication of a Notice of Proposed Rulemaking (NPRM) in the *Federal Register* (Volume 73, Number 73) that outlines proposed amendments to the original SP/LSA rule.

Course Corrections

There is a great deal of material in the NPRM, and I won't attempt to repeat it here. If you are part of this community, though, we hope that you will interpret this document as verification that the FAA is "ready to copy" your comments. We need to know what you think, for example, about the proposal to replace sport pilot privileges with aircraft category and class ratings. Do you see a downside to removing the requirement for all flight instructors to log at least five hours of flight time in a make and model of light-sport aircraft before providing training in any aircraft from the same set of aircraft? Or, what about the proposed revisions to flight training requirements for student sport pilot solo cross-country navigation and communication?

Your feedback is vital to keeping the SP/LSA rule on course, so please take advantage of the opportunity to share your real-world experiences and ideas. The comment period is open until August 13, 2008. We are looking for comments on not only the specific proposals, but also on the economic impact.

To read the NPRM, go to www.faa.gov/regulations_policies/rulemaking/recently_published/. You can also go directly to the text via http://edocket.access.gpo.gov/2008/08-1127.htm/. This document includes hyperlinks to submit comments electronically to the Federal eRulemaking Portal at http://www.regulations.gov/. Your comments should reference a specific proposal, explain the reason for any recommended change, and include supporting data, if applicable.

More Feedback

Rulemaking processes are perhaps the best known opportunity for public comment, but you can also tell us what you think about many other FAA documents and products. The 2007 version of the FAA's *Instrument Flying Handbook* (FAA-H-8083-15A) is a great example of how the FAA used suggestions from pilots, instructors, and aviation industry groups to produce a significantly updated version. The 2007 IFH is available at www.faa.gov/library/manuals/aviation/instrument_flying_handbook/. We are revising several other handbooks, and we welcome your comments and suggestions. Just e-mail your thoughts to: AFS630comments@faa.gov. We are ready to copy!

Susan Parson is a Special Assistant in Flight Standards Service's General Aviation and Commercial Division. She is an active general aviation pilot and flight instructor.

DAVID ST. GEORGE

The Legend of Lake Winnebago: How NOT to Fly a Seaplane to Oshkosh

How easily we can cross the line from "fun and safe" to "dangerous and scary" is a continual surprise to me, and the subject of many post-mortem National Transportation Safety Board (NTSB) analyses. My first trip to Oshkosh™ was a very close call. This is the true story behind those rumors of the "full-moon landing" at the Vette Seaplane Base, including the drama of how we got to that ultimate foolishness. I tell it as a cautionary tale for fellow mission-oriented aviators.

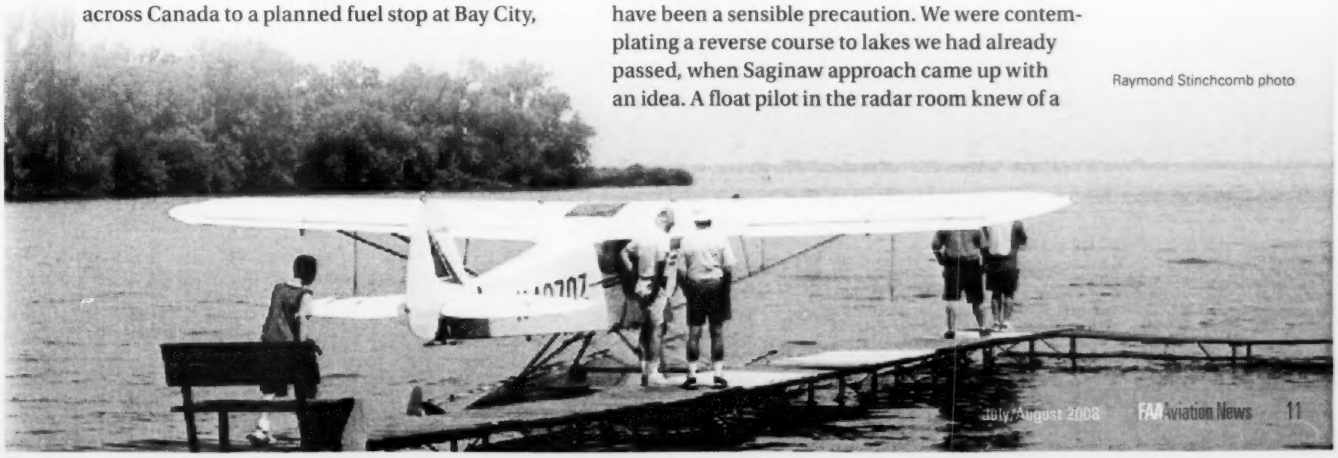
There is perhaps no holier mission to a pilot than "flying to Oshkosh for the Big Show." It was well into the 1990s and I had never been to Oshkosh. What made this first flight appealing was the lure of flying a beautiful Cessna *Super Hawk* on straight floats to the famous Vette Seaplane Base. Seven Sugar Fox was a beautiful machine, well equipped (even for Instrument Flight Rules (IFR) conditions) and well maintained. Even more tempting was the idea of flying as second-in-command to "Doc," a pilot who had flown and taught flying on skis and floats since the 1940s. With a superb aircraft and a huge reservoir of experience, what could possibly go wrong?

The first clue arrived when I got to the lake at 0600 and learned that I was to be pilot in command (PIC)—Doc had a problem with his medical. The third member of our party, Ted, had a newly installed liver and was medically not qualified to fly. I was medically fit, but my only real preparation was packing for the week and a quick scan of the major weather systems. Still, the plane was loaded and ready with full fuel, including a reserve tank and camping gear. Eager and mission-ready, we were off the water by 0630 and climbing on an IFR flight plan from New York's Finger Lakes to Buffalo and across Canada to a planned fuel stop at Bay City, Michigan. There is palpable excitement when a plan is going well, and a sunny, cloudless sky as we flew over Niagara Falls contributed to our enthusiasm.

The second clue came after crossing Canada and re-entering the United States for Michigan. With clouds and rain visible ahead, it was apparent that luck would not be enough. About an hour away from our stop at Bay City and solidly in the clouds, we solicited a pilot report (PIREP) from a *Citation* ahead and learned that Victor 337 was clear of convective weather and bumpy, but "doable." As we droned through the gloom at a blazing 68 knot groundspeed, however, Saginaw approach spoiled the fun by announcing the presence of a solid line of thunderstorms and offering a diversion.

Looking down at the floats bolted to the spot where wheels usually reside, I sheepishly confessed that we were a seaplane on straight floats. Though years of flying instruments in the challenging New England weather had made me totally comfortable in instrument meteorological conditions (IMC), I suddenly realized the trouble we were in on straight floats. The frequency became quiet, while fellow fliers contemplated our stupidity. Our determination to complete the mission had resulted in a complete dead-end situation.

You can visualize how inexorably this trap was sprung. Okay, I'm suddenly the PIC. (I can do that.) Okay, we filed IFR, since we needed a flight plan over Canada. (That's cool.) But actually flying straight floats in the clouds requires some more careful planning. Bay City (3CM) actually has a VOR (Very High Frequency Omnidirectional Range) approach to the river and we did not technically need a floatplane-capable alternate, but it would have been a sensible precaution. We were contemplating a reverse course to lakes we had already passed, when Saginaw approach came up with an idea. A float pilot in the radar room knew of a



Raymond Stinchcomb photo

reservoir just 10 miles away that could take floatplanes, if we could get visual. It would have been more sensible—and safer—to turn back rather than plunge ahead into the storm, but human nature is a strange thing. We took the bait.

Our IFR quasi-visual circling approach to a lake in deteriorating mist and wind was interesting to say the least. The absence of visual clues for height and line-up were stretched to the max, and landing straight floats in three-foot swells is a sure-fire adrenalin surge. Fortunately, we spotted a sandy beach on the downwind, promptly secured the plane in the wild weather, and retreated to the shelter of an overturned boat on sawhorses. A very gracious homeowner, amused by three drenched and giddy aviators under his boat, brought us inside to dry out and load up on hot fluids.

With passage of the storm and a fresh Flight Service briefing that reported improving skies to our planned Bay City fuel stop, we launched...only to find that the storm had driven everyone at this normally bustling seaplane base to more hospitable locations. Even if you have never attempted to fly a straight float-equipped aircraft cross-country, you can probably guess that the fuel stop must be carefully planned. Finding Bay City devoid of life left us pretty low on options—and fast running out of daylight. Numerous calls on a bad pay phone turned up a long shot in Sebewaing (98G). This fellow promised to drive a fuel truck from the airport to the boat launch. With few other choices, we flew an hour in the wrong direction just to get fuel. This part of the trip involved a harrowing taxi down a two-mile channel with one of those huge metal seawalls—the kind that eats Cessnas for breakfast. A brisk crosswind caused the plane to continually weathervane toward that wall, necessitating a serpentine course between Scylla and Charybdis.

After surviving the fuel stop, it was time to transit Lake Michigan. It may not seem as perilous in a floatplane, but waves driven by the frontal passage looked significant. The roaring headwind made it apparent that we would need yet another fuel stop, but the flight guides provided nothing in western Michigan. My co-pilot finally noticed Fremont (3FM), and we again diverted off course for fuel. Such stops are never as quick and efficient as a land-based operation, but 3FM—an exceptional facility, by the way—had a special truck rigged and got us quickly back on our way.

For those keeping score, we had by this time been en route for 10 hours and had made three fuel stops. Our senses and cerebral tools were getting duller, but we mission-driven aviators decided to launch for the last leg. With lighter winds, we had plenty of fuel, but not enough daylight for a flight that would still take another hour. What to do? The lakes below were certainly land-able, but we weren't enthusiastic about a night bobbing about and serving as dinner for Wisconsin's plentiful mosquito population. We pressed on.

An in-range call to Vette Seaplane Base on the *Notice to Airmen* (NOTAM) frequency 123.3 MHz brought no response. They had sensibly closed up and retired to the campground. Though we knew we could land on the huge Lake Winnebago, how would we find the seaplane base or navigate the channel in the dark? As we pondered the options, the radio suddenly came alive. "Vette Seaplane Base here, Seven Sugar Fox, say position?" I could have cried with relief. Those wonderful guys brought every John Deere Gator™ they had into service, and we had an almost lighted landing zone. This landing has been written into Vette history as the full moon landing, but, as the PIC, I can only say how fortunate we were that it did not become the full-moon swim.

Lessons learned: Seaplanes are tough for cross-country, and fuel (at any cost) is golden. IFR-equipped does not mean IFR-capable (even if "the mission" and friends would dictate this). Pressing on was foolish, since our luck could have run out at any of several points on this trip. Fly carefully, so you arrive safely at the big show.

If you're wondering about the trip home? We made it back in just one leg, thanks to a significant tailwind and the reserve fuel tank. Ted flew home in a locally based *Citation* jet. (Wouldn't you, after that trip out?)

David St. George is an FAA Gold Seal Flight Instructor and FAA Designated Pilot Examiner for the Rochester FSDO. He recently earned his sixth renewal as a National Association of Flight Instructors (NAFI) master certificated flight instructor. His Web site is FAAFlightTest.com.

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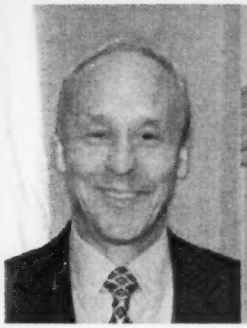


FREDERICK E. TILTON, M.D.
FAA FEDERAL AIR SURGEON

Aeromedical Advisory

Pilots Are Welcome Here

Those are the bold-type opening words on an FAA Civil Aerospace Medical Institute (CAMI) brochure entitled *Physiological Training Courses for Civil Aviation Pilots*. The phrase certainly applies to the courses that are the subject of the brochure, but it also applies to the entire range of resources that CAMI's Airman Education Program creates and makes available, free, to pilots at http://www.faa.gov/pilots/safety/ pilotsafetybrochures/.

With the 2008 Experimental Aircraft Association's (EAA) AirVenture® convention just around the corner, we also want to stress that pilots are welcome at CAMI's Airman Education Program exhibits and live presentations in the FAA Aviation Safety Center. We have many resources to offer, and we are eager to meet you.

If you can't make it to Oshkosh™, you are still welcome to take advantage of the many resources that the CAMI Airman Education Program has created to help airmen better understand the unique characteristics of the aviation environment. We will profile specific resources over the next few months.

Protecting Your Eyesight

Let's start with a subject that is timely for summer flying in general, and for AirVenture participants in particular: Protecting your eyes from exposure to harmful solar radiation. The medical certification process has long accommodated the reality that very few are blessed with perfect vision. Unless you are among those fortunate few, the "limitations" portion of your medical certificate will clearly state the requirement for use of corrective lenses when you fly.

Wearing glasses or contact lenses when you fly meets the legal requirement, but corrective lenses are not enough. Because infrared and ultraviolet radiation from the sun can damage your eyes, you also need *protective* lenses. The right sunglasses can help protect your eyes from exposure to harmful solar radiation. Sunglasses also reduce the effects of harsh sunlight, decrease eye fatigue, and protect your eyes from the risk of impact with objects (such as flying debris from a bird strike).

Beyond the Image

Sunglasses have long been part of the "cool pilot" image. When you are selecting your next pair of flying sunglasses, though, be sure to consider function along with fashion. Here are just of a few tips from CAMI's *Sunglasses for Pilots: Beyond the Image* brochure:

- Wear sunglasses that incorporate 99 to 100% UVA (ultraviolet-A) and UVB (ultraviolet-B) protection.
- Weigh the pros and cons of the most common lens materials in use ("crown" glass, monomer plastic (CR-39®), and polycarbonate plastic).
- Choose a tint that screens out only 70 to 85% of visible light, and does not appreciably distort color.
- Avoid polarized lenses, which can reduce or eliminate the visibility of instruments with anti-glare filters.

For more information, go to: www.faa.gov/pilots/safety/pilotsafetybrochures/

Come See Us

We look forward to seeing you, along with your corrective and protective eyewear, at the FAA Aviation Safety Center in Oshkosh. In the meantime, good health and safe flying!

Dr. Tilton received both an M.S. and a M.D. degree from the University of New Mexico and an M.P.H. from the University of Texas. During a 26-year career with the U.S. Air Force, Dr. Tilton logged more than 4,000 hours as a command pilot and senior flight surgeon flying a variety of aircraft. He currently flies the Cessna Citation 560 XL.

JAMES WILLIAMS

Transit Traps

Avoiding Misadventures En Route

In "The Legend of Lake Winnebago" article on page 11, a highly experienced pilot confesses to the various errors of planning, judgment, and decision-making that eventually required him to make a night landing at the Vette Seaplane Base. Happily, he and his passengers survived their trip to Oshkosh, Wisconsin. Unfortunately, though, they are not the only ones to experience a few "close calls" in transit to the big event. Some of the close calls regrettably became "last calls."

To be sure, the safety record for events such as the Experimental Aircraft Association (EAA) AirVenture® gathering in Oshkosh is enviable. From 1982 to 2007 there were 124 accidents associated with travel to or from AirVenture, which resulted in 79 fatalities, 19 serious injuries, and 28 minor injuries. That is an average of 4.77 accidents per year, with 1.79 fatal accidents and 3.04 fatalities per year. The relative rarity of accidents surrounding this event reflects well on FAA and EAA organizers and pilots, especially in view of the numbers involved. The 2007 event brought 10,000 aircraft and 560,000 people together. Still, we can do better.

Photo courtesy of Mooney Aircraft

A review of the accidents shows they fall into several categories, which include takeoff and landing, mechanical, planning, weather, stalls, special procedures, and taxi. (*Note: There were also accidents associated with air show maneuvering and medical issues, but the numbers are small and we will not discuss those accidents here.*)

Takeoff and landing accidents accounted for 29 of the 124 accidents. Many takeoff and landing accidents occur because of loss of directional control, reduced separation, or diverted attention. These hazards are increased in the busy Oshkosh environment, where the challenge of flying special procedures (discussed later) may distract pilots from normal routines. If you're heading to the show, add some spot-landing practice to practice sessions. Practice picking a point and trying to land on it. Consider flying with a qualified instructor, if your precision landing techniques are rusty.

Mechanical accidents accounted for 28 of the 124 accidents, or an average of just over one per year. Some mechanical malfunctions may not be avoidable, but there is plenty you can do to minimize the risk. First, ensure that the aircraft is properly maintained and serviced. Second, be aware that your eagerness to launch and the general nervous excitement of a long cross-country to Oshkosh can be distracting, which means that you need to take more than the usual care on your preflight inspection. Third, review your aircraft's systems and emergency checklists again a day or two before you depart. That way, you'll be much more prepared, if something does go wrong.

Planning errors factored into 20 of the 124 accidents, with the dominant issue being fuel. A long cross-country to Oshkosh may be one of the longest trips you've ever made, which requires careful fuel calculations and prudent reserve decisions to avoid arriving on fumes. More fuel means more options. Also, plan your arrival to occur before the airport closes for the afternoon air show. Alternatively, know where to find nearby airports where you could get some lunch, explore, or perhaps even take a short nap in the pilot's lounge, if Wittman Regional Airport is closed because of an accident or congestion. For more tips on planning for long trips, please see "Beyond the $100 Hamburger" from our May/June 2007 issue (available online at http://www.faa.gov/news/aviation_news/2007/media/MayJune2007.pdf).

Plan carefully to avoid transit traps that could stop you short of your destination.

Weather is a challenge on every flight, but, as the intrepid aviators in the straight float-equipped Cessna discovered (article on page 11), it can be a much greater challenge on a long cross-country flight. Twelve of the 124 accidents reviewed were attributed to weather. You may be intimately familiar with the "micro-meteorology" of your home airspace, but that won't be much help on a longer trip into unfamiliar territory. Knowledge and understanding of trends and frontal movements become critical. So is a thorough weather briefing. While the Internet offers a number of "self-help" resources, a good weather briefing from a skilled professional is a powerful resource at your disposal, and it's free. For tips on how to get the best briefing possible, check out the Flight Service briefer's tips on page 17 of this issue.

Stall events accounted for 13 accidents. While you are practicing precision landing techniques (discussed earlier), add slow flight and refresh your stall recovery skills as well.

Transit Tips – Getting There Safely

Know the NOTAM

The coordinates are N43°59.06´W88°33.42´. But it takes more than the Wittman Regional Airport coordinates in Oshkosh, Wisconsin, to get to the Experimental Aircraft Association's (EAA) AirVenture® 2008 safely. If you plan on flying to Oshkosh in your own aircraft, the first step in planning is to get a copy of the 2008 AirVenture *Notice to Airmen* (NOTAM). This document, available online at www.faa.gov and also at www.airventure.org/2008/flying/2008_notam.pdf/, details the special flight procedures for anyone operating in the greater Oshkosh area starting at 6 a.m. CDT on Friday, July 25, and ending at 11:59 p.m. CDT Sunday, August 3, 2008. Also, don't forget to check NOTAMs for any temporary flight restrictions (TFR) you might encounter en route.

Know Your Limits

Are you proficient in flying at all points of your aircraft's speed range? It may be necessary to fly faster or slower than normal in order to mix safely with so many different aircraft. Remember, you are pilot in command (PIC). If a controller asks you to fly slower or faster than your aircraft can safely operate, tell him or her that you are "unable" and request alternative instructions.

Know Your Aircraft

There are several aircraft performance issues to review. If you are camping, for example, do you know how much your camping gear weighs for an accurate weight and balance calculation? How about density altitude? A hot, humid summer day can make a maximum gross weight takeoff very "interesting." Having plenty of fuel to accommodate weather or unexpected delays is important as well.

Know the Terrain

If your route takes you across Lake Michigan, be sure to file a Visual Flight Rules (VFR) or Instrument Flight Rules (IFR) flight plan. In addition, you'll want to take advantage of the Lake Reporting Service that Flight Service (FSS) provides to pilots upon request. As outlined in the *Aeronautical Information Manual* (AIM), the Lake Reporting Service notifies search and rescue forces if an aircraft on this special flight plan fails to contact the designated Flight Service Stations within the specified time period, or if the aircraft cannot maintain radio contact. For any long cross-country, especially one involving a lake transit, it's wise to include a survival kit.

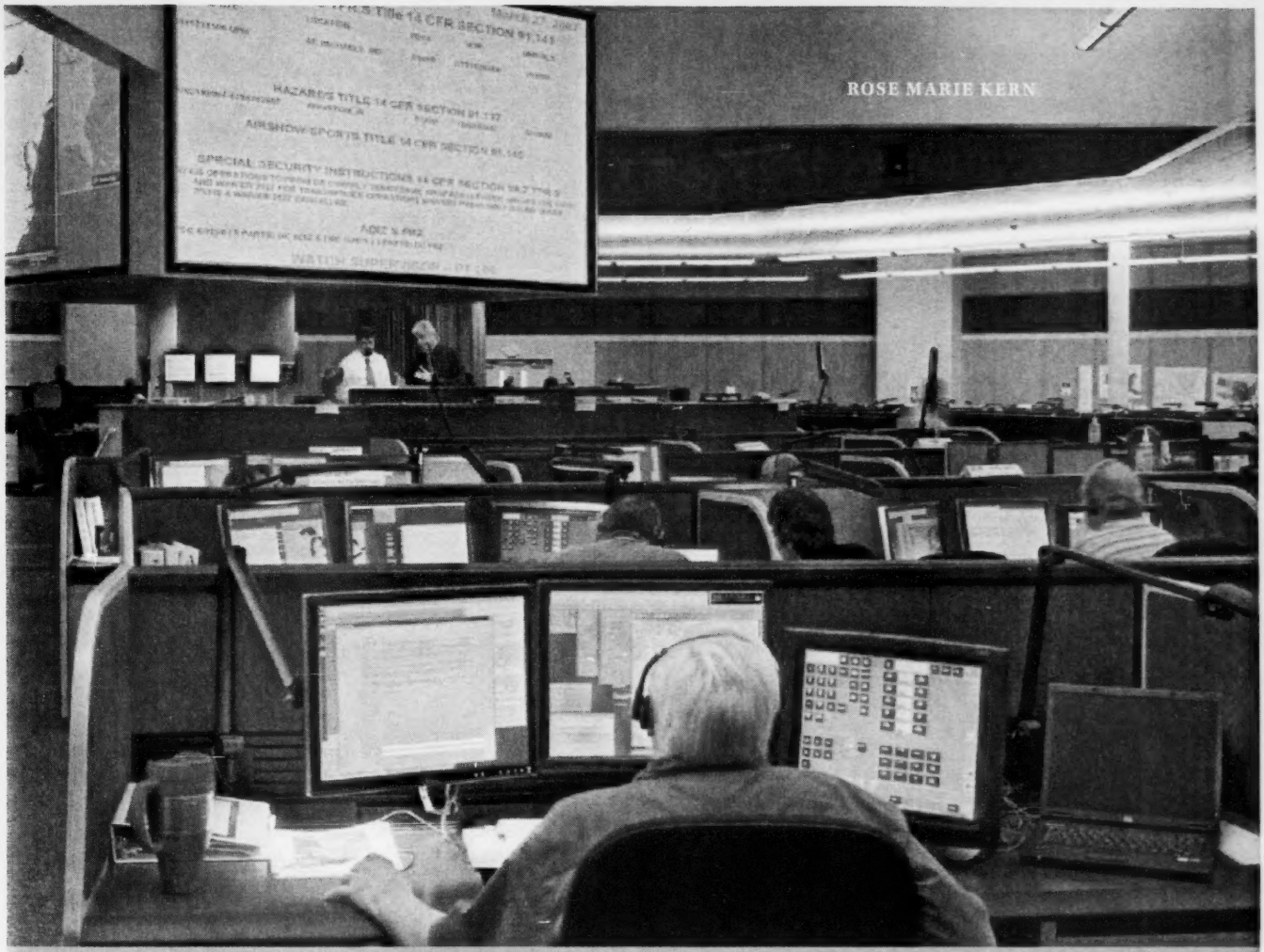
Special procedures issues factored into 11 of the 124 accidents. Several of these involved issues with either arrival/departure or landing procedures. At AirVenture, air traffic uses a spot-landing system, and there is a detailed arrival procedure that inevitably brings many different levels of aircraft performance and pilot experience/skill into a relatively confined area. It is imperative to be completely familiar with the special operating procedures, which are described in detail in the *Notice to Airmen* (NOTAM) issued each year for the event. It may help to visualize the flight or, better yet, practice in a flight training device or with a flight simulation program on your computer. A simulated practice run will help you learn the basic procedures before you do it for real. It may also highlight areas that you don't understand. It's better to answer those questions before you find yourself flying over Ripon or Fisk. You can also consider talking to pilots who have made the trip already.

Taxi/ground mishaps accounted for five accidents. The sheer number of aircraft operations in and on the ramp areas, parking areas, taxiways, and runways raises the risk of an accident. To help prevent an accident in this category, you should thoroughly review the taxi and parking procedures outlined in the NOTAM and prepare any needed materials (e.g., your parking sign). In addition, use extreme caution during all ground operations. Look carefully and clearly announce your intentions.

Consider where your prop wash will end up after you start and be considerate of those around you. It may be necessary to push the aircraft clear of a parking line to avoid blasting people, tents, or airplanes around your parking spot. Once in motion, be vigilant for any possible conflicts.

In summary, preparation is key to avoid becoming a statistic. Whether it be a visit to a maintenance shop, a couple of refresher flights, an evening spent thoroughly reviewing the AirVenture NOTAM, or other methods, preparing for your trip is the first step to a successful, and safe, AirVenture adventure.

James Williams is a Technical Writer-Editor in Flight Standards Service's General Aviation and Commercial Division. He is also a pilot and a ground instructor.



PAINLESS PILOT WEATHER BRIEFING

Photo courtesy of Flight Service

One of the jokes in Air Traffic Control is that the controller tells pilots "where to go." Yet, a Flight Service specialist does not "control" where pilots go—we advise pilots, especially where NOT to go. Helping pilots avoid adverse conditions is what we do, but we need pilots to help us provide the best possible information. From the perspective of a Flight Service specialist, it's great when a pilot provides background information like this:

"I am VFR only, experimental N5LP going from Albuquerque at 1430 Zulu at one-two-thousand via Gallup to Flagstaff, with two hours and 15 minutes en route."

Beautiful! Most of the time the pilot states only a few items and I have to ask for the rest. In just 15 seconds, though, this pilot has given me everything I need to provide a standard pilot weather briefing. Pilots sometimes say, "I don't want to file a flight plan, just get a weather briefing." What you may not realize is that the data that my computer provides is based on that information. It saves time for both of us, especially in busy times and locations, if the pilot initially provides everything the system needs to generate a complete pilot weather briefing.

VFR or IFR

It is not the briefer's job to determine a pilot's abilities. We just need to know what you want to do. This question tells us whether or not you have the training and instrumentation to fly through clouds. We are not making a judgment as to whether a pilot *should* go Instrument Flight Rules (IFR) or Visual Flight Rules (VFR). It helps to know if you are VFR only, would like to go VFR but could go IFR, or

simply IFR. This tells us whether we should let you know that VFR is not recommended, or if we need to provide instrument arrival and departure *Notice to Airmen (*NOTAM) information.

Aircraft ID or Call Sign

All briefings, radio calls, and other data are recorded by the aircraft's call sign, not by the pilot's name. The computer requires this entry to get us to the briefing data. If you do not yet have an assigned aircraft, we can list it as NOACID (no aircraft identification) and put the pilot's name in the remarks section.

Aircraft Type

Many pilots do not realize that there was a widespread re-identification of aircraft types about 10 years ago. For example, a *Cherokee*, known as a PA28, became a P28A. The old Flight Service Station (FSS) computers would accept PA28 as an identifier. The new FS21 system recognizes that there is no longer a PA28, so it will not accept the flight plan until the correct aircraft type designator is used. If you don't know the correct identifier, the Flight Service briefer can help you look it up. [*Editor's Note: Appendix A of FAA Order 7110.65S has a complete list of acceptable aircraft types. This list can be found at www.faa.gov/airports_airtraffic/air_traffic/publications/at_orders/media/Basic7110.65S.pdf/.]*

It saves time if the pilot initially provides everything the system needs to generate a complete pilot weather briefing.

Departure Point, Route, and Destination

It seems obvious, but for a complete and accurate account of weather and NOTAMs, we need the entire route. A pilot flying from Albuquerque to Phoenix may forget to say that he is flying from Albuquerque's Double Eagle Airport to Chandler Municipal in the Phoenix area by way of Silver City. Without this information, we are not able to get the specific weather and NOTAM information for your airport. If we assume a direct route, then we do not know to tell you, for example, about a Temporary Flight Restriction (TFR) for forest fires near Silver City.

Even for VFR flights, please give your route according to aviation NAVAIDS or airports. The computer does not recognize lakes and highways. If you file a flight plan, you can add lakes, highways, and/or towns in remarks.

Altitude

Many years of experience have given us knowledge concerning the altitudes various aircraft can reach, but if you want the wind forecasts, please give us a specific altitude or a range of altitudes. Also, you may want to request the briefer's opinion as to which altitude would be best for your direction of flight.

Departure Time

We brief pilots in various time zones across the country, so the use of Coordinated Universal Time (UTC), commonly known as "Zulu" time, is essential. If you're not sure of the Zulu time, you can say you are leaving 30 minutes from now. Then we can glance at the Zulu clock and add it quickly.

Time En Route

We use the time en route to calculate the time period over which we need to scan forecasts and NOTAMs.

Help Us Help You

Your time is valuable, and we are eager to help you make the most of your flying time and opportunities. Following these tips will help us give you the information you need to make weather decisions and fly safely.

Rose Marie Kern is a Flight Service specialist at Lockheed Martin's Albuquerque, New Mexico, Automated Flight Service Station.

MAX TRESCOTT

13 Tips to Keep You Flying Safely

If granted one wish, I would wave a magic wand and wish that pilots everywhere always made the right decisions so that aircraft accidents would become a thing of the past. While not possible, when you consider that approximately 80 percent of accidents are caused by poor decision making, it's clear that, as pilots, we each have the capability to make a dramatic impact on the accident rate.

Lest you think that the many seemingly poor choices you read about in accident reports are made by incompetent pilots, consider this. With few exceptions, when I hear people talk about a pilot who perished in an accident, I hear that he or she "was such a good pilot." If that's true—and I'm sure it often is—the logical conclusion is sobering. It is that, on rare occasions, otherwise good and competent pilots make bad decisions that lead to an accident. Hence, if you and I are good pilots, we too may be subject to an occasional bad decision that could lead to our demise. That's a chilling thought.

Knowing that any of us can occasionally make a bad decision, the question becomes what can we do about it? Of course, there are no ironclad answers, but I'd like to share a few ideas that I try to instill in my flying clients. As a reader of this magazine, you may already be a voracious reader of accident reports and safety information and have heard of many of these ideas.

Hopefully, you'll find one or more new ideas and incorporate them into your flying behavior.

1 Consider the Unique Risks Faced for Each Flight

I take time before each flight to think about the unique risks posed by the flight. Invariably, those risks vary depending upon conditions. For example, recently a student and I concluded that the greatest risk posed was from nearby rain that might reach the airport before we returned from a training flight. To mitigate that risk, we identified an alternate airport to which we could return and we monitored the precipitation during the flight using NEXRAD (Next Generation Radar) on our Garmin G1000™-equipped aircraft.

Earlier today, I flew with a student and the weather was perfect. In that case, we identified that the biggest risk was violating the Class B airspace or the noise abatement procedures at our destination, located next to the San Francisco International Airport. Thus, we carefully reviewed all airspace and noise abatement rules and selected a cruising altitude that minimized the chance of an incursion.

There is a wide range of potential risks that you might face on any flight. You should be creative about teasing them out and then mitigating them. A few possibilities are changing weather, flying at night in a poorly lit area, flying over mountainous terrain, fuel exhaustion, flying an aircraft with which you lack familiarity, flying with little recent experience, and flying when fatigued. There are dozens of other possibilities, but the important thing is that you clearly identify the greatest risks you face on each flight and that you take steps to mitigate those risks.

2 Purge "Probably" from Your Flying Vocabulary

Just as a drug sniffing dog alerts in the presence of an illegal substance, you should be alert anytime you think the word "probably," or any other conditional statement, when flying. If you ever think that your course of action will "probably work out," you need to choose a new option that you know will work out.

In the San Francisco Bay area, about half of all Visual Meteorological Conditions (VMC)-into-Instrument Meteorological Conditions (IMC) accidents occur in the Livermore Valley, probably because a marine layer of clouds frequently obscures its mountains that rise from sea level to around 4,000 feet. A common way to traverse this area is through the Altamont and Sunol mountain passes. I tell pilots that if they ever approach these passes and, based upon their visibility, think "they can probably make it through," they need to make a 180-degree turn and land at an alternate airport. Likely, pilots who crashed in this area felt that they would "probably" make it through—otherwise they wouldn't have continued.

3 How Will It Read in the NTSB Report?

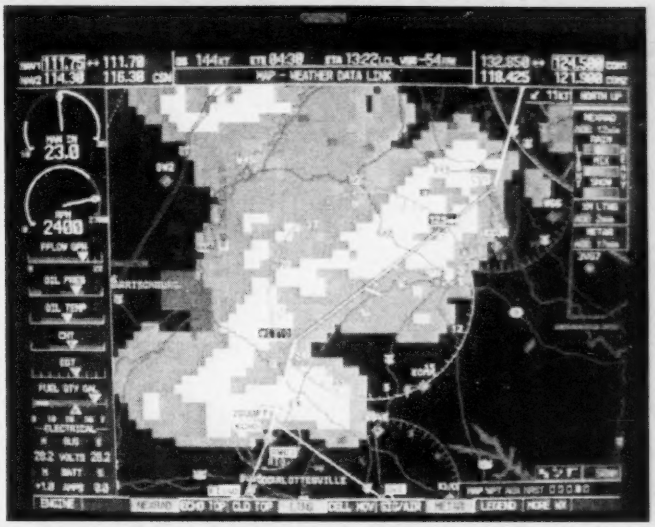
When in doubt about a possible course of action, I think about how any subsequent National Transportation Safety Board (NTSB) report might read. Recently, a student and I had already started the engine, but the automatic terminal information service (ATIS) reported a direct crosswind gusting to the aircraft's maximum-demonstrated crosswind capability. The student was ready to go, but I stopped him and we terminated the flight. To proceed would have been gambling that the gusts would not reach peak as we were taking off or landing. So I asked him, if we had an accident, how would we explain it to the Chief Pilot? The most honest answer would be, "That we were stupid."

4 Get Local Knowledge

There's no substitute for local knowledge. Just because one has been a pilot for years and has thousands of hours of experience doesn't mean that he or she can always figure out the best options for flying in an unfamiliar area. I routinely call flight instructors in other areas anytime I have a question about flying in their area, because they are the local experts.

An example is the Cory Lidle crash into a building in New York City. Cory and his instructor were flying the Visual Flight Rules (VFR) corridor over the rivers adjacent to Manhattan. The flight instructor was from southern California and probably lacked local knowledge of the area. Every local

Susan Parson photo



New York City area pilot I have talked with always flies over the Hudson River, and none fly over the East River where the crash occurred. It is local knowledge that the East River corridor is so narrow that it is difficult to make a 180-degree turn over the river, so local pilots almost never fly over it.

5 Identify Local Hot Spots

In some areas, accidents occur more frequently in localized areas. That's true in the Livermore Valley example mentioned above. Become familiar with accidents in your local area and determine if there are areas where accidents occur more frequently. Then, develop strategies for avoiding accidents when flying in those areas.

6 Become Experienced in Type

As a pilot gains experience and accumulates hundreds or thousands of flying hours, it's easy to assume that this brings with it a cloak of immunity from accidents. However, accidents are correlated more with the number of hours of experience a pilot has in a particular aircraft model and not with the total number of hours! Accidents tend to decrease after a pilot has at least 100 hours of experience in the aircraft he/she's flying. Thus, your goal should be to fly carefully, while perhaps getting some dual instruction, until you reach 100 hours of experience in a particular aircraft model. If you fly relatively few hours per year, maximize your safety by concentrating those hours in just one aircraft model.

7 Plan Accordingly for Night Flight

The odds of a daytime accident involving fatalities are about 15 percent, but they double to around 30 percent at night. If you fly at night, become a student of its unique risks. Most night accidents occur in the approach phase while descending for landing. Since it is often impossible to see surrounding terrain at night, it is imperative that you always know your position and maintain a safe altitude above the terrain.

A common trap is flying a long straight-in approach to a runway over dark terrain. Simulator studies show that when pilots look at a runway at night, if there are few lights below them, they will fly a curved path that takes them below the approach path leading to a crash short of the runway. To avoid this, maintain a safe altitude to the airport and then fly a normal traffic pattern.

Likewise, on takeoff at night over dark terrain, pilots often unknowingly descend and crash, usually within a mile of the airport. When the human body is accelerated, we perceive a tilting back sensation (somatogravic illusion), which we perceive as a climb. This is not a problem in daylight, as we see the terrain below and fly to avoid it. However, at night over dark terrain, you must crosscheck the instruments to verify that you're climbing at V_y—the best rate of climb airspeed—and have a positive rate of climb. Otherwise, you may actually be descending, even though you feel like you are climbing.

8 Select and Use Conventional and Unconventional Personal Minimums

Get a copy of the FAA's Accident Prevention Brochure P-8740-56, called Personal Minimums Checklist at http://www.faa.gov/education_research/training/fits/guidance/media/personal%20minimums%20checklist.pdf or you can find a copy in the Aviation Learning Center Library at www.faasafety.gov/. Go through the four categories of Pilot, Aircraft, Environment, and External Pressures and decide upon the minimums that you'll use to guide your decision making for every flight. For example, while it is legal under Code of Federal Regulations part 91 to takeoff under instrument flight rules (IFR) with zero visibility, you might decide to always require a ceiling and visibility that allows you to return IFR to your departure airport, if you encounter a problem after takeoff.

Also, consider unconventional minimums that you will not find on the list. For example, since most night accidents occur when there is no moon or it is obscured by clouds, you might decide to not fly at night, unless there is at least a quarter moon visible. Or, since fatigue is an accident factor, you might decide never to fly after 11 p.m., or after you've had a combined workday and flying time of, for example, ten hours total. Be creative in selecting personal minimums that fit your knowledge of yourself and known accident factors. Then, never violate the minimums you have established, regardless of the internal or external pressures you may experience to complete a flight.

9 Step Up Your Game

Always look for new challenges and ratings to acquire throughout your flying career. If you have any interest in teaching, get your flight instructor (CFI) certificate. The best way to know a subject thoroughly is to teach it. Currently, there's a shortage of flight instructors. If you have a CFI certificate and are not using it, get back into teaching. If you aren't interested in teaching, then take friends flying who have the interest in and the means to acquire a pilot certificate. Find them a flight instructor and mentor them through the process. The pilot population is declining and all pilots need to get involved in reversing this trend.

10 Strive for the Perfect Flight

Try to make each flight a perfect flight with no mistakes. It is extremely difficult to achieve, but the effort will pay dividends as you develop a routine and stick to it for every flight.

11 Develop Emergency Responses from the Comfort of Home

Rod Machado has said that the best decisions are those that you make while you are on the ground. He tells of once flying with another CFI to retrieve a plane and pilot from Santa Barbara after that pilot chose to discontinue his flight because of deteriorating weather. Rod asked the pilot when he chose to terminate that flight, and the pilot responded, "Five years ago." Take the time from the comfort of an easy chair to think through the many situations you may encounter in the future. Make rational decisions ahead of time about the actions you will take when you encounter these situations.

12 The Rule of Two

There are at least two versions of this rule. My personal version is that when I get to the second factor, which is not quite right, I scrub a potential flight or terminate an actual flight. Generally, accidents are caused by a series of bad decisions, so by stopping at the second factor that is not quite right, I am attempting to break a link in the chain and avoid having an accident.

At a safety seminar I was teaching, a pilot described a similar rule of two, which is that he never attempts a flight with two risk factors. For example, he will fly over the mountains, but not at night or when IFR. Or, if he flies IFR, he won't do it at night.

13 Two-Pilot Cockpit

There's a great disparity between the commercial and general aviation accident rates, which is partially explained by the airlines' use of two pilot crews. Over the years, I have noticed that when I fly with another pilot, I am less fatigued when I arrive. I attribute that to (a) the lower stress of sharing the workload with another pilot and (b) knowing that there's a second pilot to alert me to mistakes I make. When taking a long trip, or when needing to fly after a long day of business, consider taking a second pilot, perhaps a flight instructor, along with you for the trip.

Flying is lots of fun, but I concluded a long time ago that it is not worth dying for. Put these tips to work for you—and create new ones—so that you enjoy a long and safe flying career.

Based in Mountain View, California, Max Trescott is a general aviation advocate, publisher of aviation training materials, and the 2008 CFI of the Year. He can be reached at info@sjflight.com.

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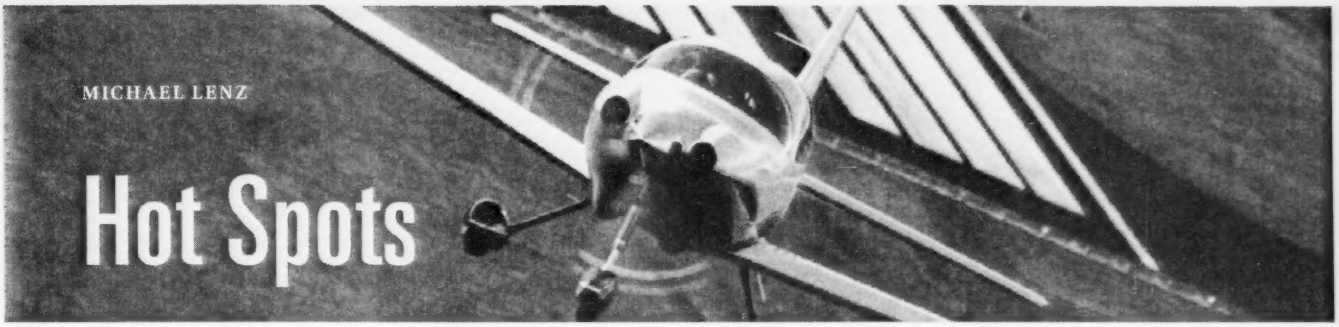


MICHAEL LENZ

Hot Spots

Tips on TIPH

Editor's Note: Hot Spots debuts in this issue of the FAA Aviation News *as a regular department. The goal of this column is to highlight "hot spot" areas where pilot deviations are occurring and provide tips to insulate yourself and avoid getting "burned."*

At a Northwestern airport with runways oriented north-south and east-west, a Piper *Cherokee* was instructed to taxi into position and hold on the east-west runway. Meanwhile, another aircraft had been cleared to a stop-and-go option on the intersecting north-south runway. While the local controller's attention was momentarily diverted, the *Cherokee* took off. The stop-and-go traffic, now airborne, dived to miss the departing Piper, which passed approximately 20 feet above it.

Such incidents occur far too frequently. In a recent three-year period, 31 runway incursions were caused by pilots departing without a takeoff clearance. Unauthorized takeoffs often result in loss of separation that, in some cases, narrowly avoids loss of life. What's going on?

Part of the problem may be the use—or, more accurately, the misuse—of a vital air traffic management tool known as taxi into position and hold (TIPH). As described in Section 5-2-4 of the *Aeronautical Information Manual* (AIM), TIPH is an air traffic control (ATC) procedure designed to position an aircraft onto the runway for an imminent departure.

TIPH is an extremely efficient use of time that would otherwise be wasted. As a landing aircraft decelerates, for example, the next departing aircraft can taxi into position for departure, when the runway is clear. For an idea of the delays that would accumulate without TIPH, consider the table above.

Unfortunately, TIPH has a dark side. To pilots, TIPH may be a "lock and load" action similar to taking the "set" position for a relay race. Just as runners sometimes "jump the gun" by starting in the split seconds before the race actually begins, pilots with a TIPH clearance sometimes mistake that instruction for a takeoff clearance. But, while a runner can simply return to the starting blocks, an aircraft with momentum continues ahead—sometimes into the path of conflicting traffic.

Aircraft	Time needed to taxi into position
Single-engine piston	30 Seconds
Jet transport	45 Seconds
Wide-body jet	60 Seconds

To avoid becoming a statistic—and, more importantly, to avoid injury or loss of life—here are some tips to keep you from tripping on a TIPH instruction.

- Always clarify any misunderstanding or confusion concerning ATC instructions.
- Try to develop a comprehensive mental picture of arriving and departing traffic.
- Read back your call sign and runway.
- If multiple runways are in use, be sure that it is your call sign and your runway when cleared for takeoff.
- Speak up if you have any doubts or concerns, such as being cleared to takeoff just after hearing an aircraft cleared for takeoff or landing on an intersecting runway. It is better to ask than risk a collision.
- Help other pilots by announcing "blocked," if you hear the garbled sound typical of two radios transmitting at once.
- If takeoff clearance is not received within a reasonable amount of time (more than two minutes), contact ATC.
- Be especially vigilant when conducting "position and hold" operations at night or during reduced visibility conditions.

For detailed information on TIPH, including guidelines and advisory information regarding TIPH operations, review Section 5-2-4 of the *Aeronautical Information Manual.* You can also check out the FAA's TIPH Guidance for Pilots document, available as a PDF file at http://www.faa.gov/runwaysafety/cockpit.cfm/.

Michael Lenz is a Program Analyst in Flight Standards Service's General Aviation and Commercial Division and a pilot.

NATIONAL GENERAL AVIATION AWARDS

And the Winners Are...

The selections have been made and the 2008 Certificated Flight Instructor (CFI), Avionics Technician, FAA Safety Team (FAASTeam) Representative, and Aviation Maintenance Technician (AMT) of the year will be honored during a "Theater in the Woods" program at the Experimental Aircraft Association's (EAA) AirVenture® in Oshkosh, Wisconsin.

"These awards highlight the important role played by these individuals in promoting aviation education and flight safety," said JoAnn Hill, General Aviation Awards Committee chairperson. "The awards program sponsors are pleased that these outstanding aviation professionals will receive the recognition they so richly deserve before their peers in Oshkosh."

This awards program is a cooperative effort between the FAA and more than a dozen industry sponsors. The selection process begins with local FAASTeam managers at Flight Standards District Offices (FSDO) and then moves on to the eight regional FAA offices. Panels of aviation professionals from within those four fields select national winners from the pool of regional winners.

John Teipen

The General Aviation Awards Program executive committee includes the FAA, the Aircraft Electronics Association (AEA), and the National Association of Flight Instructors (NAFI). Additional support and sponsorship is provided by Women in Aviation International (WAI), the Professional Aviation Maintenance Association (PAMA), the National Business Aviation Association (NBAA), the National Association of State Aviation Officials (NASAO), the National Air Transportation Association (NATA), the Helicopter Association International (HAI), the General Aviation Manufacturers Association (GAMA), EAA, the Aircraft Maintenance Technology Society (AMT Society), the Aircraft Owners and Pilots Association (AOPA), and the Aeronautical Repair Station Association (ARSA).

Information about the General Aviation Awards Program, as well as applications for next year's awards, is available on the Web sites of sponsoring organizations and at www.faasafety.gov/. Here are this year's winners.

2008 FAASTeam Representative of the Year

John Teipen of University City, Missouri, exemplifies the standard of professionalism in the fields of aviation education and flight safety. He is involved in many areas of pilot education including FAA Flight Proficiency "WINGS" seminars, FAASTeam online courses, flight instructor refresher clinics (FIRC), and youth aviation education programs.

He earned his private pilot certification in 1984 and has since become a certificated flight instructor (CFI), a FAASTeam representative (formerly an FAA aviation safety counselor), and a designated pilot examiner (DPE). Teipen believes in continuing education for all pilots and includes himself in that regimen, by being a regular attendee at safety seminars and refresher clinics.

Teipen established *www.AVTrain.net*, a Web site dedicated to promoting safety through education, to create and host online educational

programs. He created and introduced the extraordinarily successful "My First Logbook" and "Young Eagles Flight Education" programs for young people attending KidVenture EAA® during EAA's AirVenture. (See his article on page 27.)

He is one of only 20 aviation educators worldwide who has earned both the NAFI Master Certificated Flight Instructor (MCFI) and Master Ground Instructor (MGI) accreditations. These designations are granted by NAFI to outstanding aviation educators who demonstrate an ongoing commitment to excellence, professional growth, and service to the aviation community.

In 2005, he was named the National CFI of the Year in recognition of his dedication to, and passion for, aviation education.

2008 Avionics Technician of the Year

Tim Adkison of Benton, Kentucky, was born in Northern Ireland, the son of a U.S. Navy master chief petty officer. His first exposure to aviation was watching the launches and recoveries of F-14 *Tomcats,* while on a dependents cruise with his dad aboard the aircraft carrier USS John F. Kennedy (CVA-67).

Adkison attended the Institute of Electronic Technology in Paducah, Kentucky, and graduated in 1988 second in his class with an electronic engineering technology degree. After graduation, he took a position as an avionics technician with Allied Signal Aerospace in Lawrence, Kansas, where he became a lead technician. In 1991, he took a position with Carpenter Avionics in Nashville, Tennessee. He remembers this as an exciting time because he was provided the opportunity to perform flight line maintenance and repair on actual aircraft rather than troubleshooting avionics on a bench.

In 1993, Adkison was back home at Paducah working with Tomlinson Avionics, which was later acquired by Midwest Aviation Services. While there, his responsibilities included research on and installation of new avionics equipment as well as troubleshooting to the component level on DMEs, transponders, radar, VOR/ILS receivers, and communication transceivers. This was also his first experience with engineering and accomplishing installations from beginning to final test flight. He was promoted to Midwest Aviation's avionics manager in 1999.

Throughout his time with Midwest Aviation, he has tutored and mentored numerous students through the curriculum at his alma mater, Paducah's Institute of Electronic Technology, now called Paducah Technical College. He also provides on-the-job training as well as continuing education seminars for his avionics employees. In addition, he serves on the advisory board for West Kentucky Community and Technical College.

Tim Adkison

2008 CFI of the Year

Max Trescott of Mountain View, California, is a native of northern Pennsylvania. He started flying when he was 15 years old. Too young to drive, his mother, who had herself taken flying lessons as a teenager, drove him to the airport for lessons.

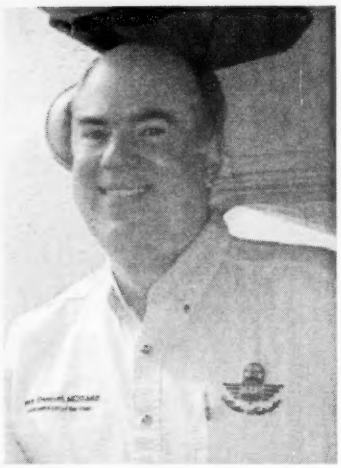
While attending Swarthmore College (Pennsylvania), Trescott completed his private pilot certificate. After obtaining an MBA in marketing and management from New York University's Stern School of Business, he worked for Hewlett-Packard (HP) in New Jersey, later moving to HP's headquarters in Palo Alto, California. During his 25 years at HP, he worked in a variety of marketing, sales, and management positions while continuing to fly and earn additional certificates and ratings.

The awards program sponsors are pleased that these outstanding aviation professionals will receive recognition they so richly deserve.

He acquired his CFI certificate in September 2001 and began working as an aviation educator on weekends at San Jose's Reid-Hillview Airport. Subsequently, he added an airline transport (ATP) certificate, as well as an instrument instructor and a multiengine instructor ratings. After leaving HP, he began teaching full-time as an independent flight instructor with several flight schools at the Palo Alto Airport (PAO), but shifted his focus to glass cockpit aircraft. He is now a factory trained Cessna FAA/Industry Training Standards (FITS) instructor, a Cirrus Design CSIP (Cirrus Standardized

Instructor Program), a Columbia (Cessna) 350/400 instructor, and teaches in the national Columbia recurrent training program.

In 2006, Trescott founded Glass Cockpit Publishing launched with the release of his *Max Trescott's G1000™ Glass Cockpit Handbook*. Several CD-ROM courses and online Internet training courses followed, all focused on modern glass cockpit avionics, including the Garmin G1000 and Wide Area Augmentation System (WAAS). As the corporation's president, he is responsible for new product development. He also produces the online newsletter www.PilotSafetyNews.com/. (See his article on page 19.)



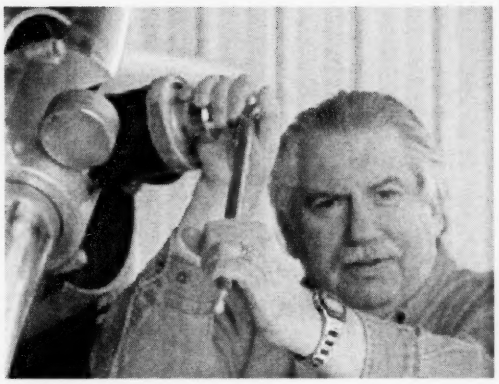
Max Trescott

2008 AMT of the Year

Mike Busch of Arroyo Grande, California, is a New Yorker by birth and a mathematician by training. He earned his private pilot certificate as a 20-year old college student and has since amassed more than four decades of aviation experience as a mechanic, inspector, pilot (including glider and seaplane), flight instructor, aircraft owner, aviation author, educator, and lecturer.

His interest in turning wrenches grew out of his many years as an aircraft owner and operator intrigued by the mysteries of aviation maintenance. He started doing his own maintenance under the watchful supervision of a certificated Airframe and Powerplant (A&P) mechanic. He passed the A&P exam and became a certificated mechanic in his own right. Three years later, the FAA granted him an Inspection Authorization.

An aviation writer since 1970, Busch began his full-time pursuit of aviation in 1995 after retiring from a long career as a software developer. One of his first post-retirement projects was the founding of AVweb, an Internet aviation news service. He served as editor-in-chief and was one of AVweb's most prolific writers for the first seven years of its existence. For the past 20 years, the primary focus of his writing and teaching activities has been general aviation maintenance.



Mike Busch

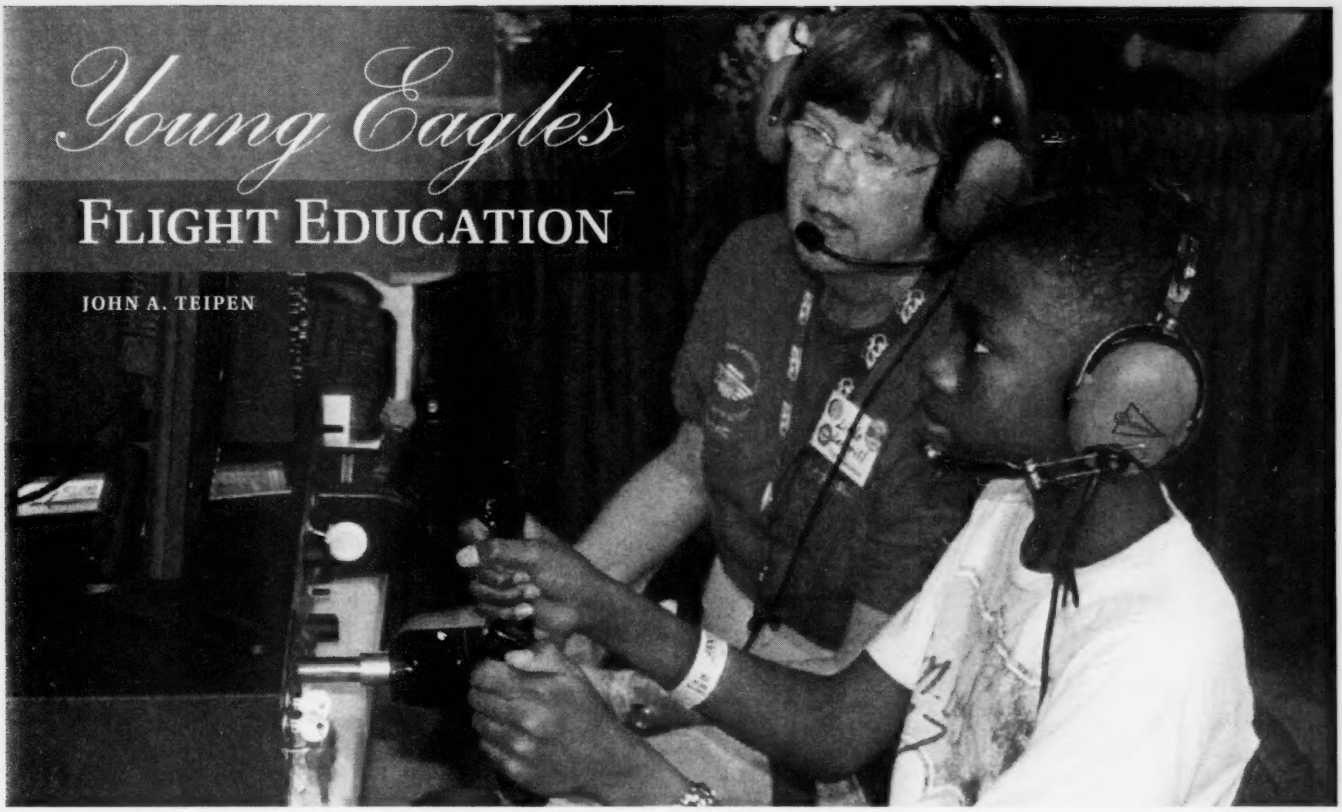
The founder and president of Savvy Aviator, Busch provides in-depth technical training to aircraft owners and their mechanics focusing on maintenance and troubleshooting in single and twin-engine aircraft. His goal is to teach them how to troubleshoot aircraft problems and how to manage the maintenance of their aircraft more effectively and cost-efficiently. He conducts these weekend maintenance seminars 10 to 20 times each year at venues throughout the United States.

Information about the General Aviation Awards Program, as well as applications for next year's awards, is available on the Web sites of sponsoring organizations and at www.faasafety.gov/.

Information and photos courtesy of the General Aviation Awards Committee

Young Eagles
Flight Education

JOHN A. TEIPEN



John Teipen photo

For the past eight years, the Experimental Aircraft Association's (EAA) KidVenture EAA® has provided thousands of children with delightful, educational aviation experiences. FAA's Aviation and Space Education (AVSED) is proud to work each year with the KidVenture Chairman and volunteers from the EAA, the National Association of Flight Instructors (NAFI), and others in support of program activities such as the following:

My First Logbook

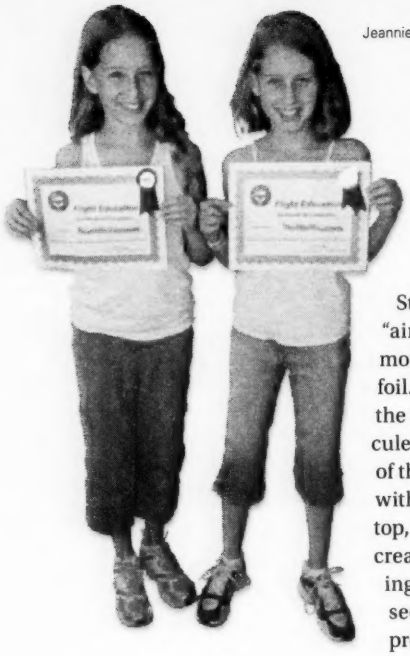
The "My First Logbook" program was introduced at KidVenture a few years ago to offer young people an opportunity to earn their first pilot's logbook, including a Certificated Flight Instructor's (CFI) endorsement for "introduction to instrument flight." Each participant received a lesson plan written by NAFI Master CFI Tom Gilmore and printed by Aviation Supplies and Academics (ASA). During the "preflight" briefing, the young people were tutored by NAFI CFIs on the use of the six basic instruments. The flight education experience was conducted on FAA-approved basic Aviation Training Devices (ATD) provided by ASA. Adding to the realism of their first professional flight education experience, students were also introduced to the use of a checklist, seatbelts, and headsets. The participants left little doubt that familiarity with computerized games helps with one's hand-eye coordination, while flying solely by reference to the instruments.

Those who earned their first logbook were thrilled with a sense of discovery and accomplishment, and parents and volunteers had a great time too. The endorsed logbook and lesson plan brochure were also a great start to a "what I did on my summer vacation" paper at school.

Young Eagles Flight Education Program

Building on the popularity of "My First Logbook," a very successful "Young Eagles Flight Education Program" was introduced during KidVenture in 2007. Using a student workbook, this program introduced a wide variety of topics outlined in the FAA Practical Test Standards. Students visited nine learning stations for an introduction to Regulations, Weather, Navigation, Human Factors, Air Traffic Control, Aircraft Design, Preflight, Simulator Flight, and Post-flight. Volunteers worked with the students at each learning station to provide a rich blend of discovery, learning, and just plain fun through the use of hands-on models and activities.

Let's take a look at two of the many activities and models from this program that help put the fun in learning about sometimes abstract and confusing aviation topics.



Jeannie Ambler photo

Bernoulli's Principle. Students string the orange "air molecules" displayed in a model above and below the airfoil. Since each string contains the same number of air molecules, a gap is created on the top of the airfoil. It's easy to see that with fewer molecules on the top, a suction or lifting force is created. Everyone enjoys moving the loose top molecules to see and feel the differences produced by the airfoil.

Regulations. Yes, FAA regulations can be fun with hands-on models and explanations by a knowledgeable instructor. To learn about proper airport traffic pattern procedures, students use a runway model and a radio recording that simulates an actual airport environment. Students learn to announce position and intentions as they "fly" the pattern.

Upon successful completion of each area, an instructor signs the student's workbook. Completion of all nine areas earns the student a Certificate of Completion. The smiles say it all, but an added benefit is that the program provides opportunities to teach young people the value of discipline, goal setting, personal accomplishments, self-reliance, decision-making, study techniques, good citizenship, teamwork, effective communication, and science.

It is important to stress that teachers are the key to a meaningful education experience. The program volunteers include chief test pilots, National Aeronautics and Space Administration (NASA) and FAA AVSED Counselors, national flight instructors of the year, flight school owners, college aviation professors, corporate and airline pilots, NAFI Master CFIs, Young Eagles Flight Leaders, and pilots with decades of practical experience.

KidVenture Facts

2008 is the 10th Anniversary of KidVenture

Over 22,000 kids have attended KidVenture

Respected aviation personalities appear on KidVenture Hero Stage

Learn flight techniques using control-line model airplanes

Dozens of activities for all ages

KidVenture is a family friendly aviation destination

Open 9 a.m. - 3:30 p.m. during each day of AirVenture

Want to Help?

The success of Young Eagles Flight Education program is based on the combined efforts of many organizations who understand the importance of working together. For instance, the FAA provides expertise and volunteers for the Preflight area. NASA educators explain Air Traffic Control (ATC) through their "Fly by Math" program. The EAA provides the KidVenture area and the models, posters, and workbooks. NAFI provides the expertise of member CFIs. ASA supplies the basic ATDs, brochures, and logbooks. Sigtronics supplies the headsets and intercoms. Last, but not least, EAA Chapters provide many expert volunteers.

It is in the interest of all aviators to spread the word about aviation careers and the thrill of flight opportunities available to the next generation. The Young Eagles Flight Education program will be offered at KidVenture during AirVenture® 2008. If your plans include travel to Oshkosh in late July, consider being a part of this exciting program as a youth education volunteer. Learn more about the Young Eagles Flight Education program through the Student Workbook, Instructor Guide, and Builders & Setup Guides available online at www.AVTrain.net/FlightEd/.

You may also be interested to learn more about the FAA's AVSED Program, which works closely with the many youth education aviation organizations that offer programs on aviation career opportunities. Some of these organizations are also working closely with FAA Safety Team (FAASTeam) to develop a youth "WINGS" program. Such a program will provide a guide for the "first flight to pilot certificate" experience, as well as ways to access and track aviation education opportunities. For more information on AVSED, please go to www.faa.gov/education_research/education/.

John A. Teipen is a NAFI Master CFI and Master Ground Instructor, an FAA Designated Pilot Examiner, Co-chairman of EAA KidVenture, and Director of the Young Eagles Flight Education Program. He was named the 2005 FAA National CFI of the Year and the 2008 FAA Safety Team Representative of the Year.

DANIEL ROLLER, *EDITOR, AVIATION MAINTENANCE ALERTS*

Aviation Maintenance Alerts

Beech: B55; Disintegrating Fuel Cell Foam; ATA 2810

"The right wing leading edge fuel cell was removed because of a fuel leak," states a submitting technician. "A replacement cell was ordered from a well known, leading supplier. Prior to the installation of the new [overhauled] cell, it was inspected and found to contain a large quantity of sawdust-like particles. On further inspection, the fuel cell [was found to still have] the foam-filled fuel reservoir inside. This foam was breaking down. After discussions with Raytheon's tech support, it was concluded that Airworthiness Directive (AD) 68-26-06 had been complied with at some point in time—which required the installation of fuel reservoirs to prevent engine power loss during steep turns and on takeoff. These reservoirs had a foam insert, which was compatible with 100/130 fuel. The use of 100LL, however, causes the foam to break down into fine particles that get trapped in filters and screens—potentially clogging them. This problem is addressed in service bulletin (SB) number 2109, which replaces the old style foam (Part/Number (P/N) 369200157) with a product that is suitable for use with 100LL. We feel the SB should be an Airworthiness Directive alerting other maintainers [who may not be aware] of this problem and its SB. Both fuel cell reservoirs [on this aircraft] now have had the foam replaced and the fuel filters, strainers, and injectors cleaned (IAW SB NO. 2109)."

(Truncating the part number's last digit finds this same defect in the FAA Service Difficulty Reporting System data base on two additional Beech aircraft: one in 1994 and the other in 1996.)

Part Total Time: 2,616.0 hours.

Cessna: 150/152; Cracked Aft Fin Attach Fittings; ATA 5530

(This safety article is published as received from the Wichita Aircraft Certification Office.)

"The FAA has received reports of cracks on the two vertical tail attach fittings on Cessna 150/152 airplanes. The aft fin attach fitting is P/N 0431009. There are three dash numbers: -1, -2, and -3. Most of the 41 reports found in the FAA Service Difficulty Report (SDR) database have been the -3 part. The SDRs are for cracked, broken, or corroded attach fittings. A statistical analysis of the SDR data indicates that the problem was getting worse from 1976 through 1991. Since 1992, these analyses indicate improvement, with SDRs reported less frequently, due to the awareness of maintenance technicians to this problem. However, the FAA wants to keep the technicians, owners, and operators aware of this problem because of the way these airplanes are used. That is, the Cessna 150/152 airplanes are used for training, aerobatics, and spins. These uses put additional air loads on the vertical tail surface. So, a failure of this attach fitting could be catastrophic. Past failures have occurred in the transition from the vertical straps to the lower plate portion of the fitting. Cracks tend to form in the outboard portion of the fitting, with the outboard strap failing before the inboard strap."

(For more information, contact Aerospace Engineer Gary Parks, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Wichita, Kansas, 67209-1985. Phone 316-946-4123.)

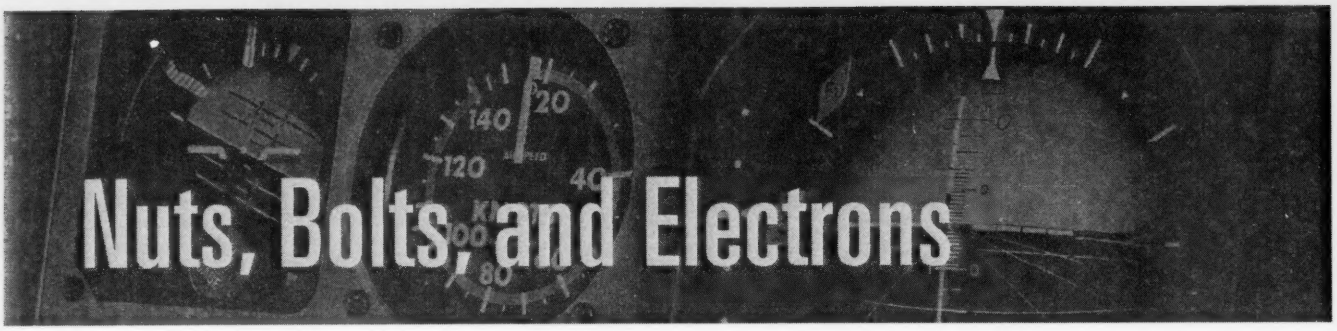
Part Total Time: (n/a).

Bell: 206B; Cracked Horizontal Stabilizer Rib; ATA 5511

"During the course of a scheduled inspection," writes a mechanic, "the right hand horizontal stabilizer was removed to troubleshoot a problem with an auxiliary strobe light that is attached to the stabilizer. During removal, the flange on the inboard rib that attaches the stabilizer to the tail boom was found cracked and separated into two pieces. Due to the location of the crack (this defect) was not visible with the stabilizer installed." (Rib and fitting assembly P/N 206-020-123-048)

Part Total Time: 2,705.3 hours.

For more Aviation Maintenance Alerts *(Advisory Circular 43.16A), go to www.faa.gov/aircraft/safety/alerts/aviation_maintenance/.*



Nuts, Bolts, and Electrons

Hazards of Hazmat

Hazardous Material in Checked and Carry-on Baggage

by Christopher J. Bonanti

If you're traveling via commercial airliner this summer, lithium metal and lithium-ion batteries are not the only thing you need to pack carefully—and some items may need to be left at home. Most people know not to transport items, such as fireworks or weapons (including pepper spray in carry-on baggage), but many are not aware that many common household and personal items may pose a risk when transported on passenger aircraft. When hazardous materials are transported without the protective packagings that are required by the hazardous materials regulations, they can leak and create the potential for dangerous situations such as fires, leaks, or toxic vapors. This is especially true in checked baggage where they can be exposed to extreme temperature and pressure variations. Here are a few of the "forbidden" items:

Household Items: Drain cleaners, bleaches, and other solvents

Compressed Gases: Aerosols (spray paints, etc.), butane fuel, pressurized SCUBA tanks, propane tanks, self-inflating rafts

Flammable Liquids or Solids: Petroleum fuels (gasoline, diesel, kerosene, etc.), paints, solvents, lighter fluid, strike-anywhere matches

Please refer to part 175.10 of Title 49 Code of Federal Regulations (49 CFR) for exact requirements.

If you carry medicinal items or toiletries that use aerosol, be sure to protect the aerosol release device with a cap to prevent inadvertent release of the contents. These items can cause fires or even explode when not properly secured in passenger baggage.

As described in the following article by Terry Pearsall, "Battery Protection and Precautions," passengers should also be mindful of hazards associated with portable electronic devices that use lithium batteries for power supplies. Passengers may carry spare lithium batteries in carry-on luggage as long as they are protected against short circuit, but these items may not be transported in checked baggage.

In addition to the physical danger of transporting hazardous materials, be aware that there is also a legal risk. A violation of the Federal Hazardous Materials Regulations (49 CFR parts 171-180) can result in five years imprisonment and penalties of $500,000 or more. Passengers are subject to the Federal Hazardous Materials Regulations, when they tender baggage at an airport security screening checkpoint or otherwise attempt to proceed through the checkpoint with the hazardous material.

If you are unsure whether an item is considered hazardous, visit the FAA's Office of Hazardous Materials Web site at http://ash.faa.gov/. Other helpful sites include http://hazmat.dot.gov and http://safetravel.dot.gov/. You can also call the airline or phone the DOT Hazardous Materials Information Center at 1-800-467-4922.

Christopher J. Bonanti is the Director, FAA's Office of Hazardous Materials.

Battery Protection and Precautions

By Terry Pearsall

On a recent flight from the United States to Japan, a passenger was wearing a personal viewing device for entertainment. Approximately two and a half hours into the flight, en route over the Pacific, the passenger noticed that the device, which had been fully charged the night before, was getting hot. When the plastic case began to expand, he threw the control module to the cabin floor, where it reportedly erupted with a 10-inch plume of sparks and debris. A flightcrew member doused the control module with water. Fortunately, no one was injured.

Although such incidents are rare, the growing popularity of portable electronic devices (PED) that use lithium and lithium-ion batteries is grow-

ing exponentially. As many as two billion lithium metal (Li) and rechargeable lithium-ion (Li-Ion) batteries are manufactured and transported each year. Lithium-ion batteries power portable electronic devices, such as laptop computers, portable DVD players, digital cameras, portable drills, cellular phones, air purifiers, personal viewing devices, and many other consumer products. In airliners, lithium metal batteries also provide power for on-board aircraft lighting, avionics equipment and components, and emergency and standby systems.

Although the estimated failure rate of all lithium batteries is also low—around one per 10 million batteries manufactured—the result of even one lithium battery incident in an airborne or ground operational environment could have catastrophic consequences. Tests conducted by the FAA's Office of Aviation Research indicate that:

- A relatively small fire source is sufficient to start a primary lithium (metal) battery fire
- None of the fire extinguishing agents currently in use within cargo compartments on U.S. commercial aircraft, including Halon 1301, is effective in extinguishing primary lithium (metal) fires.
- The ignition of a primary lithium battery releases burning electrolyte, which can perforate cargo liners and propagate a fire to other locations in the aircraft.

What the FAA is Doing

In mid-April, the FAA participated in a public meeting involving various government agencies and industry representatives to share information on reports of incidents involving lithium batteries and battery-powered devices. The group developed a plan of action to reduce the risk associated with the transport of batteries on aircraft. Specific actions include:

- Developing a public awareness campaign on risks associated with carriage, stowage, and charging of batteries.
- Placing battery safety information, including Web site links, at locations where people purchase, travel with, or dispose of batteries.
- Recommending that battery safety information be marked on portable electronic devices and requiring that safety information be printed on battery packaging.
- Issuing an Advance Notice of Proposed Rulemaking (ANPRM) to seek comments on possible restrictions on carriage, use, and recharging of batteries while in flight and on the ground.
- Chartering an Aviation Rulemaking Committee (ARC) to provide recommendations to FAA on stowage and carriage of energy sources on board cargo airplanes.
- Developing a mechanism for industry trade associations to report battery-related incidents, thus allowing FAA to collect/track such data for risk mitigation purposes.
- Issuing a Safety Alert for Operators (SAFO) and an Information for Operators (InFO) on the risks of exposure, preventing onboard battery fires, and fire fighting practices.
- Analyzing chemical extinguishing agents that can suppress lithium metal battery fires.
- Developing training materials for flight crews on how to respond to battery incidents (fires and overheating) aboard aircraft.

Informative Safety Sources

Safety tips for travelers can be found at:

http://safetravel.dot.gov.

FAA Headquarters
800 Independence Avenue, SW
Washington, DC 20591

General Aviation and Avionics Branch, AFS-350, Aircraft Maintenance Division

Air Transportation Division, AFS-210

Director, Office of Hazardous Materials, ADG-1

FAA SAFOs www.faa.gov/other_visit/aviation_industry/airline_operators/airline_safety/safo/

Consumer Product Safety Commission http://www.cpsc.gov

Video on extinguishing in-flight laptop computer fires http://www.fire.tc.faa.gov/2007Conference/files/Training_Videos/ThursPM/Videos/Laptop_master.wmv

Passenger Precautions

DON'T pack or carry batteries with contact terminals exposed
DO affix plastic caps or other insulated material to protect batteries of all types from possible short circuits

DON'T place batteries in position where impact damage is likely
DO pack batteries in a container to prevent damage from excessive impact or keep them installed in portable electronic devices or in the original retail packaging

DON'T pack batteries in checked luggage
DO pack spare batteries in carry-on baggage so they are accessible in case they catch fire

DON'T replace batteries with spares while in flight
DO replace them with fully charged batteries while at the gate or before leaving home

DON'T place carryon bags next to oxygen cylinders in an overhead bin
DO place such bags in other overhead bins

DON'T attempt to extinguish a lithium-ion battery fire with Halon 1211 extinguishing agent alone or use ice to smother a PED fire
DO knock down the fire with Halon; then apply an abundance of water or other non-alcoholic liquid to cool the battery temperature – again, DON'T USE ICE!

DON'T use counterfeit or bulk/surplus shipments of batteries of questionable quality
DO purchase and use only batteries offered from reputable sources or device manufacturer

DON'T charge lithium batteries
DO use only the appropriate charger (provided by the manufacturer) for lithium-ion and lithium polymer batteries

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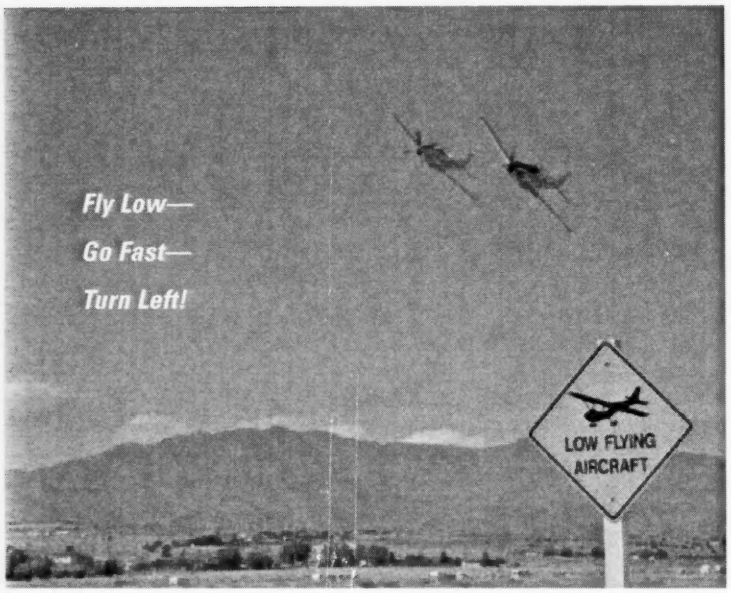
Terry Pearsall is an Aviation Safety Inspector in Flight Standards Service's General Aviation and Avionics Branch.

H. DEAN CHAMBERLAIN

Ready *for* Reno?



Kenneth Kelly photo

The 45th Reno National Championship Air Races and Air Show will be held at the Reno Stead airport 10 miles north of Reno, Nevada, on September 10-14. More commonly known as the Reno Air Races, this event features six classes of aircraft competing for individual class honors.

The six classes are the Biplane, Formula One, Sport, T-6, Jet, and Unlimited. The Biplane class includes aircraft such as the *Pitts Special*. The Formula One airplanes are all powered by a basic Continental O-200 engine, plus other defined aircraft-design limitations. Kit-built aircraft with a piston engine of 650 cubic inches or less make up the Sport class. Stock former military T-6 aircraft that include T-6 *Texans*, Canadian-built *Harvards*, and U.S. Navy SNJs compete head to head in the T-6 class. Many of the popular Czech-built Aerovodochody L-39 *Albatros* jets compete in the Jet class. Finally, the Unlimited class includes any piston-powered aircraft with an empty weight of more than 4,500 pounds. Included in this class are many of the highly modified World War II era fighters.

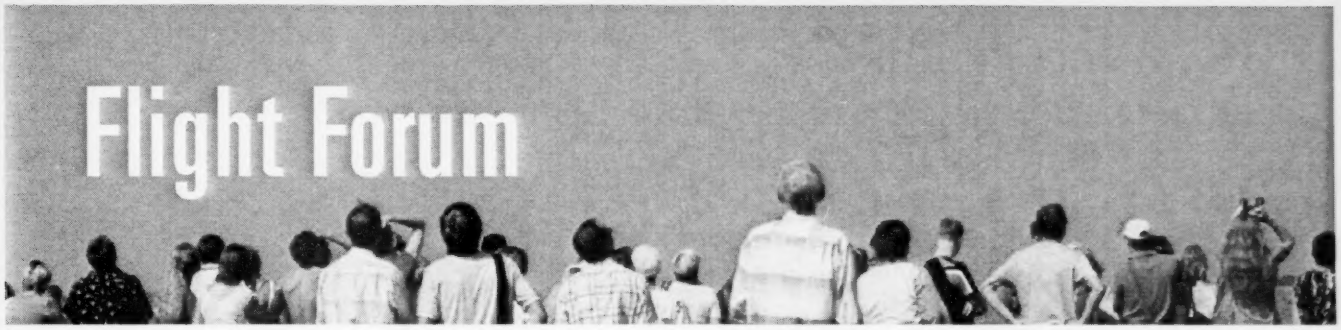
Billed as the world's fastest motor sport by the Reno Air Racing Association (RARA), which sponsors this event, the race features speeds ranging from the 200 plus miles per hour (mph) for Biplane aircraft to more than 500 mph for the Unlimited aircraft. Because aircraft sizes and speeds differ so much between classes, the various races are flown on different overlapping race courses depending upon the class. The small Biplanes, for example, race on a 3.1-mile course, while the Unlimited class races on a larger 8.35 mile course. All races follow the simple motto, "Fly Low—Go Fast—Turn Left!"

In addition to the air races, there is also a daily air show. One of the highlights this year is the scheduled appearance of the United States Air Force Demonstration Squadron, the "Thunderbirds." For complete details about the races and air show, visit the RARA Web site at www.airrace.org/indexJS.php/.

If you visit the pit area, stop in and say hello to the Reno Flight Standards District Office (FSDO) aviation safety inspectors monitoring the races. Although RARA, as the waiver holder, is responsible for the safety of the races and air show, the FAA plays an important safety role. This function includes ensuring that participants comply with the terms of the selectively-waived airspace and operating rules needed for the races and air show. For instance, the FAA waiver permits participants to deviate from certain rules, such as airspeed restrictions, while maintaining an equivalent level of safety for spectators and nearby areas. Crowd control lines and minimum distances to people and property are other safety measures the FAA safety inspectors monitor.

Enjoy the show!

H. Dean Chamberlain is an Aviation Safety Analyst in Flight Standards Service's General Aviation and Commercial Division. He is a Commercial Single and Multiengine Land and Sea rated pilot; a Commercial Glider pilot, a Certificated Flight Instructor Airplane Single and Multiengine and Instrument, and an aircraft owner.



Whale-Watching

Thank you for an interesting article, "Birds, Bees, and Baleen Whales," in the May/June 2008 *FAA Aviation News*. Your work inspired me to do a little research on the subject of flying near right whales. It seems that you may have overlooked Title 50 Code of Federal Regulations section 224.103(c)(iv), which states that "Paragraphs (c)(1) and (c)(2) of this section do not apply to an aircraft unless the aircraft is conducting whale watch activities." Isn't that exclusion pertinent to the subject?

— **Larry Dighera**
via the Internet

We asked Lt. Paul Kunicki, Right Whale Maritime Liaison Officer in the National Oceanic and Atmospheric Administration's Fisheries Service, Protected Resource Division, to respond to your query. According to Lt. Kunicki, "The main intention of the rule is to prevent anyone from harassing whales by flying in close proximity to them. The rule does not prevent a plane from flying below 1,500 feet over the Atlantic Ocean; however, it does prohibit any aircraft from intentionally approaching a right whale within 500 yards for the purpose of whale watching."

Aviation News Online

Last year I inquired if *FAA Aviation News* volumes 40 through 43 were lost to the public. Many online periodicals published by federal agencies maintain archives allowing the public to read earlier articles, but there didn't appear to be an archival link on the magazine's Web site. There is now.

Kudos to you and your team. On behalf of my library and others pointing to these issues, we really appreciate your efforts to restore access to the online issues. It makes your efforts to produce *FAA Aviation News* as a quality product more enduring, when back issues are accessible online.

— **John Stevenson**
University of Delaware Library

Thank you for your comments. Those back issues and the new look of the Web site are the hard work of James Williams of the magazine staff.

Best Kept Secrets

I've been flying general aviation aircraft since 1969, and this is the first time I've seen *FAA Aviation News*. I can't imagine how I've been able to avoid seeing this publication for almost 40 years—although I only noted back issues to 2001 so perhaps it hasn't been around all those years. I think this is good enough material that it deserves a little better publicity in the GA community. Good work. I'm looking forward to perusing eight years of magazines in PDF form.

— **Bill Romano**
via the Internet

Thank you for your kind comments. Actually the magazine has been in existence since 1961, when it was first published by the FAA in newsletter format, before becoming a magazine in 1962. We hope you enjoy the past issues.

Photo ID

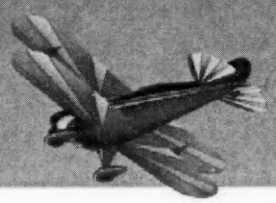
Could you identify the name and location of the airport on page 10 of the May/June issue of the magazine? It wasn't mentioned and I am curious as to which airport it is.

— **John Murasso**
via the Internet

According to our files, it is Lake Tahoe Airport (TVL), South Lake Tahoe, California. The photo was submitted to us, not taken by one of our staff, so a review of the AirNav.com entry for the airport would tend to confirm the location.

FAA Aviation News welcomes comments. We may edit letters for style and/or length. If we have more than one letter on the same topic, we will select one representative letter to publish. Because of our publishing schedules, responses may not appear for several issues. We do not print anonymous letters, but we do withhold names or send personal replies upon request. Readers are reminded that questions dealing with immediate FAA operational issues should be referred to their local Flight Standards District Office or Air Traffic facility. Send letters to Editor, FAA Aviation News, AFS-805, 800 Independence Avenue, SW, Washington, DC 20591, or FAX them to (202) 267-9463, or e-mail them to AviationNews@faa.gov.

JAMES WILLIAMS



AV News

FAA Mandates Plastic Certificates

The Federal Aviation Administration (FAA) is implementing changes to its airmen certification requirements. When this rule becomes effective on March 31, 2010, paper pilot certificates may no longer be used to exercise pilot privileges. Three years later, certain other paper airmen certificates, such as flight engineers and mechanics, may no longer be used to exercise the privileges of those certificates. The deadlines for compliance are March 31, 2010, for pilots and March 31, 2013, for other airmen. To exercise the privileges after those respective dates, the airmen must hold upgraded plastic certificates. For more information, see http://edocket.access.gpo.gov/2008/pdf/E8-3827.pdf/.

Sport Pilot Rule NPRM

On April 15, 2008, the FAA issued a Notice of Proposed Rulemaking (NPRM) regarding sport pilots and flight instructors with a sport pilot rating. The proposed changes are intended to address airman certification issues that have arisen since the regulations for the operation of light-sport aircraft were implemented in 2004.

Some of the changes include: Eliminating provisions that would require a person exercising sport pilot privileges and flight instructors with a sport rating to carry his or her logbook while in flight; providing for the use of aircraft with a special airworthiness certificate in the light-sport category in training courses approved under part 141; and requiring one hour of flight training on the control and maneuvering of an aircraft solely by reference to instruments for sport pilots operating airplanes with a maximum airspeed in level flight with maximum continuous power (V_H) greater than 87 knots calibrated airspeed (CAS).

The full NPRM is available at http://edocket.access.gpo.gov/2008/pdf/08-1127.pdf/. Instructions to comment on the NPRM are included in the document. Comments must be received by August 13, 2008.

Upgrades for Aircraft "Black Boxes"

The FAA has mandated significant upgrades to aircraft cockpit voice and flight data recorders. These improvements will enable investigators to retrieve more data from accidents and incidents requiring investigation.

Under the final rule, which affects manufacturers and operators of airplanes and helicopters with 10 or more seats, all voice recorders must capture the last two hours of cockpit audio, instead of the current 15 to 30 minutes. The new rule also requires an independent backup power source for the voice recorders to allow continued recording for nine to 11 minutes, if all aircraft power sources are lost or interrupted. Voice recorders also must use solid state technology instead of magnetic tape, which is vulnerable to damage and loss of reliability. Effective dates vary. Airplanes (but not helicopters) operating under parts 121, 125, or 135 of federal aviation regulations will have to retrofit some equipment by April 7, 2012, and new aircraft must have these enhancements after April 7, 2010. For more information, see http://www.faa.gov/regulations_policies/rulemaking/recently_published/media/23532.DOC/.

NTSB Releases 2007 Aviation Accident Statistics

The National Transportation Safety Board has released the preliminary aviation accident statistics for 2007.

"The U.S. aviation industry has produced an admirable safety record in recent years," said NTSB Chairman Mark V. Rosenker. "However, we must not become complacent. We must continue to take the lessons learned from our investigations and use them to create even safer skies for all aircraft operators and their passengers."

The Safety Board's aviation accident statistics show that in 2007, there were 24 nonfatal accidents involving part 121 airlines (aircraft with 10 or more seats). One fatality occurred involving a nonscheduled part 121 aircraft, when a mechanic

was fatally injured while working on a Boeing 737 in Tunica, Mississippi.

No fatalities occurred among part 135 commuter operators (fewer than 10 seats). However, on-demand (charters, air taxis, air tours, and medical services when a patient is on board) part 135 operations reported 43 fatalities (62 accidents, 14 fatal accidents), up from the 16 fatalities that occurred in 2006.

While the overall number of general aviation accidents rose from 1,518 in 2006 to 1,631 in 2007, the number of fatalities in 2007 was down from 703 to 491 (a 30 percent decrease), making it the lowest annual total in more than 40 years.

Foreign-registered aircraft accounted for 11 accidents in the United States in 2007, with three fatalities from a single fatal accident. Of the 14 accidents involving unregistered aircraft, six were fatal and resulted in seven fatalities.

The 2007 statistical tables are found at http://www.ntsb.gov/aviation/Stats.htm/.

Air Traffic Safety Action Program Announced

The FAA and the National Air Traffic Controllers Association on March 31, 2008, signed an agreement to create an Air Traffic Safety Action Program (ATSAP). It is designed to foster a voluntary, cooperative, non-punitive environment for the open reporting of safety of flight concerns by FAA's Air Traffic Control employees.

Under the ATSAP, all parties will have access to valuable safety information that may not otherwise be obtainable. This information is to be analyzed in order to develop skill enhancement or system corrective action to help solve safety issues. The pilot program is set to last 18 months. For more information, see http://www.faa.gov/news/press_releases/news_story.cfm?newsId=10191/.

FAA Grandfathers Previously Approved Aircraft Kits

On April 18, 2008, FAA issued a Notice of Intent not to re-evaluate aircraft kits previously determined to be eligible for certification as amateur-built aircraft. This means that any aircraft kit that had previously been evaluated for compliance with the 51 Percent Rule will continue to be considered in compliance. Any unfinished kits may be completed and certified as amateur-built aircraft. Also the previously evaluated designs can still be purchased, built, and certified as amateur-built aircraft.

For more information, see http://edocket.access.gpo.gov/2008/pdf/E8-8217.pdf/.

WAAS LPVs Exceed ILS Approaches

The Civil Aeronautics Administration, the predecessor to the FAA, commissioned the Instrument Landing System (ILS) in 1945 and there are 1,229 procedures published today. Since commissioning of the Wide Area Augmentation System (WAAS) five years ago, the FAA will have published over 1,250 Localizer Performance with Vertical Guidance (LPV) approaches as of the September 25, 2008, *U.S. Terminal Procedures* publication.

An LPV approach combines the advantages of Area Navigation (RNAV) with the precision and vertical guidance of an ILS. The FAA added new ILS service to 13 runway ends last year. The annual WAAS procedure production rate has been 300 since 2006, increasing to 500 in 2009, and will continue at this rate until a WAAS procedure is published for every airport that meets the minimum qualifications for an instrument approach. This production rate equates to adding 77 WAAS procedures every 56-day production cycle.

Pilots flying WAAS-equipped-aircraft can also descend to the Lateral Navigation/Vertical Navigation (LNAV/VNAV) minima on the RNAV (GPS) approach chart. LNAV/VNAV minima were designed for aircraft with barometric vertical navigation systems typically found only in flight management systems. More than 400 RNAV (GPS) procedures have LNAV/VNAV guidance, but do not yet have LPV minima. What matters to most pilots is not the total numbers, but when the airports they use will receive a WAAS approach. The FAA's National Flight Procedures Office Web page, at http://avn.faa.gov/index.asp?xml=nfpo/index/, lists the instrument procedure production plan and also has a link for requesting an instrument approach procedure.

General aviation avionics manufacturers were the first to develop WAAS receivers and more than 30,000 have been sold. Business jets, regional airliners, major airliners, and helicopters are now starting to equip as WAAS flight management systems, multimode receivers, and WAAS sensors become available and Supplement Type Certificates (STC) are approved. Aircraft owners should check with their avionics representatives on equipment availability for their aircraft.

For the more information on WAAS, GPS, and the new GPS technology, visit http://www.faa.gov/about/office_org/headquarters_offices/ato/service_units/techops/navservices/gnss/.

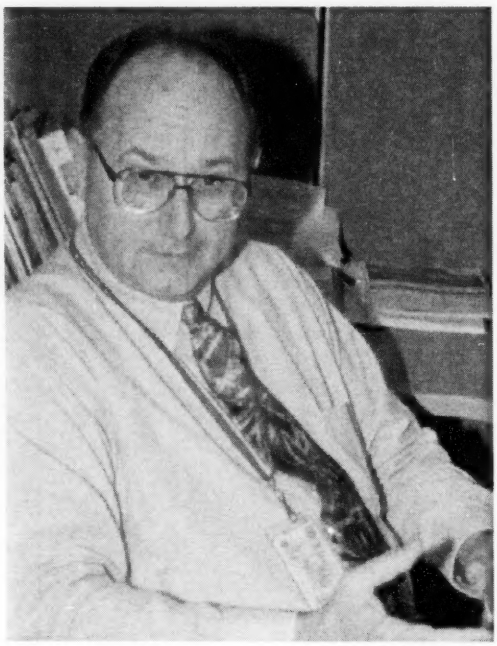
H. DEAN CHAMBERLAIN

Editor's Runway

Good Bye

Thank you. Two simple words, but I hope they convey my appreciation and gratitude to everyone who has helped me in my job here at *FAA Aviation News* for the past 17 years. Little did I realize when I was hired in July 1990 that I would be working on *FAA Aviation News* this long. I have accepted a new job in another FAA Flight Standards division.

It has been a fun and exciting 17 years. I have traveled to more places and met more people than I could ever have imagined when I was hired. I have had access to people and places I once only read about in aviation magazines and saw on the nightly news.



Mario Toscano photo

As a naive general aviation (GA) pilot and flight instructor, who thought he knew something about GA, it is now obvious that I knew a lot less than I thought I did. Working with the professionals at FAA and with the many people I met through this job has taught me a lot more about GA than I could ever pass on. I hope in some small measure I have been able to convey FAA's safety message. I also hope I have helped someone avoid an accident.

In the years I worked on *FAA Aviation News*, our goal was to bring you the FAA news and safety messages that would make a difference. I hope we succeeded. As I leave, the magazine has an exciting new look and a new editorial/management team in place. I hope you find the new format refreshing and that you will look forward to each new issue.

I would be remiss if I didn't recognize some very special people and FAA offices that made my job so much easier and fulfilling over these long years. These include the former editor Phyllis Duncan, current associate editor Louise Oertly, and former art director Mario Toscano, who retired in September 2007. I can never repay their help, support, and advice over all of the years we worked together. Two FAA offices stand out because of their extraordinary help and support to the magazine: the Orlando and Reno Flight Standards District Offices, which have supported our efforts to report on the annual Sun 'n Fun™ fly-in, the many year-round safety programs at the FAA Safety Team National Resource Center in Lakeland, Florida, and FAA involvement at the National Championship Air Races & Air Show (aka Reno Air Races). Many other individuals and offices have helped as well, but, rather than risk missing someone in a list, I want to just say thanks to everyone for many great years at *FAA Aviation News*.

One special mention goes to the magazine's youngest member, James Williams, who was hired in October 2006 as the "rookie." He will soon have two years' experience here, and who knows what he will be doing in another 15 years. He might even have his own rookie on staff by then.

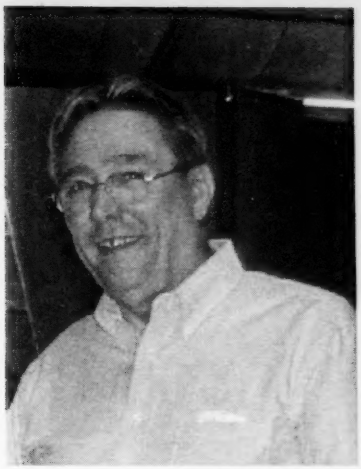
It has been a fun and exciting 17 years. I have traveled to more places and met more people than I could ever have imagined when I was hired. I have had access to people and places I once only read about in aviation magazines and saw on the nightly news. It has been fun, but I am off to new challenges, working with a former editor of *FAA Aviation News* on new projects. So it is a small world after all. Thanks to everyone for a great 17 years.

Dean

LYNN MCCLOUD

FAA Faces: Rich Mileham

Leader of the Band



Laurie Zaleski photo

FAA Aviation Safety Inspector Rich Mileham set out to be a school music teacher. Though it may appear that his FAA career as Great Lakes FAA Safety Team (FAASTeam)Assistant Manager is a departure from that early goal, it is really just a different kind of music. Mileham is one of the people who helps orchestrate the voices you hear in the FAA Safety Forum at the Experimental Aircraft Association's (EAA) AirVenture® in Oshkosh, Wisconsin.

Like any musical conductor, Mileham seeks out a mix of subjects, sounds, and styles to fill the Safety Forum's six daily slots. Then he harmoniously arranges them. Some presentations, such as those on topics tied to the FAA Flight Plan, provide the deep foundational bass notes. Others carry the primary safety melody, and, of course, it wouldn't be Oshkosh without the grace notes of Rod Machado's crowd-pleasing humor.

As described in the "Behind the Scenes" article on page 2 of this issue, Mileham is also instrumental in the FAA's overall participation in AirVenture. Working with Great Lakes Regional Executive Programs Specialist Estela Ponce, Mileham organizes, staffs, and manages the Flight Standards Service's display in the FAA Safety Center's Exhibit Hall. "We try to recruit a mix of employees for the exhibit," observes Mileham. "Of course, we have people from the FAASTeam, consisting of operations, airworthiness, and avionics specialties."

Maintenance, like music, is fundamental to Mileham. His professional journey from music teacher to maintenance technician started when he volunteered for the U.S. Air Force in 1966 and found himself assigned to work on aircraft. He liked it so much that he earned his Airframe and Powerplant (A&P) mechanic's certificate and launched his civilian maintenance career with a part 135/145/141 operator in Bloomington, Illinois in 1973. After 11 years with industry, Mileham joined the FAA in 1984 as an Aviation Safety Inspector (airworthiness) at the DuPage Flight Standards District Office (FSDO), where he stayed until 1998. He left DuPage FSDO to be the first incumbent of a newly created regional airworthiness job. That, in turn, positioned him perfectly for the next "verse" of his varied career—as a maintenance and airworthiness expert for the FAASTeam.

Much of Mileham's day-to-day work as Great Lakes FAASTeam Assistant Manager involves data analysis projects in order to develop targeted initiatives on which the FAASTeam can make the biggest difference for safety. At the same time, he strives to keep in tune with the real world. AirVenture provides the ideal venue, says Mileham, who is a veteran of ten previous summer sessions in Oshkosh. "EAA AirVenture really is 'one-stop shopping,'" he says. "You can get to any part of aviation—from ultralights, to homebuilts, to corporate—as well as all the vendors. And, you get the full gamut of public inquiries at our Flight Standards booth."

Though music didn't become his career, it is still a key part of Mileham's life. "It's my stress relief," he notes. Along with several like-minded musicians, Mileham regularly takes his instruments and voice to bluegrass open-stage events around the region. "I play bass, guitar, banjo, and mandolin, and participate in weekly jam sessions from September to May each year." Mileham envisions creating some kind of "safety and song" entertainment and education event at a future AirVenture. "Teaching and entertainment go hand-in-hand," he asserts. That could be a great way to get more pilots and mechanics "singing" off the same safety page. It could indeed...and we look forward to it!

FAA Safety Team Assistant Manager Rich Mileham envisions creating some kind of "safety and song" entertainment and education event at a future AirVenture.

Lynn McCloud is Special Assistant for Communications in Aviation Safety.

U.S. Department
of Transportation

**Federal Aviation
Administration**

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The Federal Aviation Administration Wants You!

Attention pilots, mechanics, and avionics technicians:

This is your chance to start a career in the exciting field of federal aviation safety. The FAA's Flight Standards Service is currently hiring aviation safety inspectors. We are looking for individuals with strong aviation backgrounds for inspector positions in fields ranging from Maintenance to Operations, to Avionics. Both air carrier and general aviation inspectors are needed in all fields. There are positions available throughout the nation. This is your opportunity to use your experience to improve the already excellent safety record of civil aviation in the United States. As an aviation safety inspector you would be responsible for overseeing airmen, operators, and others to ensure they meet the rigorous safety standards set forth by the FAA.

The FAA is an excepted service agency of the United States Department of Transportation. Starting salaries range from $39,795 to $75,025 (FG 9- FG 12) plus locality pay (Locality pay is a geographical enhancement to your base salary). For more information please visit http://www.opm.gov/. Benefits include federal retirement and 401K type accounts. Health and other insurances are also available.

Qualifications vary depending on discipline. For details please visit http://jobs.faa.gov/. Under "All Opportunities" you can search by job series 1825 or title containing "inspector." The FAA is expecting to hire approximately 850 inspectors this fiscal year so start your application today.

FEDERAL AVIATION ADMINISTRATION